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CONCEPTUAL PRINCIPLES FOR BUILDING A BALANCED AND COMPETITIVE DEVELOPMENT PORTFOLIO FOR A DIVERSIFIED ENTERPRISE

The object of research is the process of forming a balanced competitive portfolio for the development of a diversified enterprise in conditions of limited resources and high variability of the external environment. It was determined that one of the most problematic areas is the lack of capabilities of existing matrices to take into account the specifics of goods that are in close production or market interaction with existing or prospectively attractive goods of the enterprise.

The following methods were used: analysis; synthesis; comparison; abstraction; analogy; measurement; grouping; graphic; mapping of strategic groups; experimental and game methods; industry analysis.

During the study, the modified BCG matrix was improved by adding another square, "chest". It reflects goods that are no longer on the market, but are technologically or structurally related to the existing goods of various business units of the enterprise. The results of the implementation of the improved BCG matrix at the representative enterprise confirmed the expediency of allocating this square. The results obtained made it possible to determine the synergy between products, assess the prospects for their development and justify the expediency of regrouping the enterprise's capabilities within the portfolio. Successful and correctly justified strengthening of the activities of some business units at the expense of others allowed the studied enterprise to increase sales by 320 thousand UAH (8.45 thousand USD), profit by 175.2 thousand UAH (4.63 thousand USD), reducing the amount of loss, and also reducing demand fluctuations during the year. The proposed approach allows to take into account not only market indicators, but also the innovative potential, compatibility, and development opportunities of product groups. This increases the accuracy of strategic decisions. Compared with well-known analogues, the proposed model provides strategic balance and competitiveness.

Keywords: portfolio analysis, BCG matrix, balance, development portfolio, "dream" product, "chest" product.

1. Introduction

The effective operation of an enterprise depends on the balanced increase of its own capabilities in various components, namely: compliance with revenues and expenses; own and borrowed funds; product groups with different stages of life cycles, etc. Ensuring such balance is possible through the formation of optimal portfolios for the development of the enterprise (market, product, investment, etc.).

The main tool for forming balanced portfolios is portfolio analysis matrices. The advantage of these matrices is their two-way direction. Internal, which consists in the ability to reflect the positions of structural divisions and product groups of the enterprise in relation to each other in order to balance their stages of life cycles with each other. External, which contributes to the reflection of the market positions of the enterprise or structural units in relation to competitors, allowing to choose specific areas of strategic development in order to differentiate them from competitors in different market segments.

The construction of portfolio analysis matrices for modern enterprises is particularly relevant, given the limited resource supply, narrowing of sales markets, closure of some enterprises, etc. Such conditions require effective reduction of individual areas of the enterprise's activity in order to provide them with promising competitive components (assortment groups, structural divisions, etc.).

The scientific literature presents a significant number of publications related to portfolio analysis matrices. For a better study of this issue, it is appropriate to group the existing works into separate blocks. The first "theoretical block" includes works that present the content of the matrices [1, 2], the features of their construction [3, 4] and the basic principles of use [5, 6]. However, the works of the mentioned scientists describe the general principles of portfolio analysis matrices without taking into account the specifics of individual enterprises, in particular, domestic, diversified, etc. The main difficulties in their use lie in the need to adapt the content and structure of these matrices to the specifics of the activity and the features of the interaction of enterprises with various stakeholders, groups of goods, etc. In the second "specialized block" it is possible to single out works in which a comparative characteristic of individual matrices is presented [7, 8]. Based on the results of a critical analysis of the comparative features of the considered and most frequently used matrices, it is possible to conclude that they are mostly static.

Accordingly, the studied matrices do not take into account the dynamic development of products, the transformation of market conditions, the change of the life cycle or the innovative renewal of portfolio elements. The possibility of taking these aspects into account is considered by scientists in their works, which are attributed to the third block. The third block singles out works on variants of modifications of basic matrices to solve specific issues related to: the specifics of the activity [9] and the size of enterprises [10]; the type [11, 12] and form [13] of their activity; the level of decision-making [14]. In [15], a modification option is considered by constructing profit distribution schemes through the formation of a base of available financial capabilities and projected profit reserves in terms of individual types of products. In [16], the relationship and impact of innovative products at different stages of innovation activity on other products of the enterprise are reflected, as well as the need to create certain innovations is identified. In [17], the possibilities of analyzing dynamic trends and taking into account different time frames for analyzing the product portfolio. And also, through: forming a product portfolio taking into account the impact of products on the environment, market growth and its share [18]; determining the competitiveness of machine-building enterprises in the domestic market taking into account their industry specifics [19], etc. However, the existing models proposed by scientists in the third block do not take into account the multi-industry structure of diversified enterprises that operate in a complex and unpredictable environment. That is, there is a shortage of tools that allow combining internal product diversification with external competitive adaptation.

The results of the analysis emphasize that the portfolio analysis matrices reflect the positions of existing or potential products (structural business units) on the market and the possible change of these positions due to changes in market needs and enterprise capabilities. However, they ignore the possible change of positions of existing products (business units) due to their relationships with basic, related, similar products on the market, substitute products, prototypes or pre-existing products of their own production.

The aim of research is to form the conceptual principles of building a balanced competitive portfolio of a diversified enterprise based on improving the portfolio analysis matrix with components that will contribute to the choice of a strategy for the competitive development of the enterprise, taking into account the relationship of existing products with their basic samples. This will contribute to the improvement of individual (demanded) characteristics and features of existing products (structure of business units) and will provide the opportunity to create better modifications on their basis.

To achieve the aim, the following objectives were set:
– to analyze the most common portfolio analysis matrices;
– to justify the feasibility of using one of them to choose a competitive direction for the development of domestic enterprises.

2. Materials and Methods

The object of research is the process of forming a balanced competitive portfolio for the development of a diversified enterprise in conditions of limited resources and high variability of the external environment. For this purpose, the modified matrix of the Boston Consulting Group (BCG) was improved by adding another square "chest". This square reflects goods that are no longer on the market, however, technologically or structurally related to the existing goods of various business units of the enterprise. The main hypothesis of the study is that the use of the improved modified BCG matrix as a tool for strategic analysis allows for more effective determination of measures for optimizing the properties of products and/or business directions of a diversified enterprise, which contributes to a more effective rationalization of the structure of its portfolio. The paper assumes that the market positions of the business units of the representative enterprise under study were determined in relation to the activities of competing enterprises in the

western regions of Ukraine. The study was carried out using the following methods: analysis, synthesis, comparison when determining the features of various matrices of portfolio analysis; abstraction and analogy in substantiating the feasibility and need for improving the modified BCG matrix. Also used the method of measurement, grouping and graphic in determining the positions of the business units of the studied enterprise in the market and mapping strategic groups – key competitors of each of the business units of the studied enterprise. The basis of the study was also experimental and game methods in outlining the options for strategic development of each of the selected business units and the entire enterprise and industry analysis in determining the trends in the development of the markets in which they operate.

3. Results and Discussion

3.1. Theoretical justification for the choice of portfolio analysis tool

The main methods of portfolio analysis are matrices: Boston Consulting Group (BCG – matrix "growth – market share"), McKinsey – General Electric ("attractiveness – competitiveness"); Shell-DPM ("industry attractiveness – competitiveness"); ADL/LC (firm Arthur D. Little); I. Ansoff. The focus on these matrices is due to the fact that their theoretical and methodological principles are widely described in the scientific literature, and their practical use is emphasized by the effectiveness of implementation at both domestic and foreign enterprises.

Each of the above matrices is two-dimensional. On one axis of these matrices, factors of the internal component of the studied business entities are plotted (the state of structural divisions, product groups, the enterprise as a whole, etc.), and on the other their external (market) orientation is reflected. That is, these matrices allow to reflect the current relationship between the internal and external capabilities of business entities or their structural elements, facilitating decision-making on the use of certain measures that will allow to change the current position to the desired one. When displaying the structural elements of one enterprise on the matrix, it is possible to make a decision on their location so that the results of the activities of each of them contribute to ensuring the effective strategically competitive development of the enterprise. This is possible due to the appropriate balancing of the capabilities of each structural component of the enterprise according to two criteria of a specific matrix. Balancing does not mean the same development of all components of the enterprise. In this case, one structural unit can develop in the direction of reduction, since all the efforts of the enterprise will be directed to the development of a more promising (in terms of technical, market, production, etc. aspects) structural unit.

Each of the matrices has its own advantages and disadvantages, features and modifications to adapt them to the domestic conditions of the functioning of enterprises, as well as to solve specific issues.

The BCG, McKinsey and ADL matrices are most often subject to adaptive improvements. The implemented changes are associated with the flexibility of these matrices, their corrective capacity, which is due to:
– the peculiarity of their construction, in particular, the McKinsey matrix due to the ability to expand the parameters of constructing positions on the matrix with new factors;
– the representativeness of the matrix, in particular, the BCG due to the convenience of displaying on the matrix individual aspects of the activities of enterprises (business units, products, business processes, etc.) and its components.

The use of the McKinsey matrix for the purpose set in the article will be complicated by the diversity of indicators that characterize specific factors in the relevant period of time and/or their different weight coefficients in these periods of time. For example, when determining the position of a business unit or a certain type of product at the present time, an important factor that characterizes the competitiveness of the enterprise is a high level of environmental friendliness of the product.

And when the basic product was in demand a few years ago, the main criterion, for example, was price parameters. That is, the positions of business units will be distorted by individual characteristics inherent in them in a certain period of time, as well as due to various features of national economies, stages of the life cycle of enterprises, their product groups, sales methods, etc. In principle, such nuances can be taken into account descriptively and their influence can be neutralized in a certain way, however, in this case, the clarity of the matrix will be lost.

The ADL matrix will allow to get answers to the question "what measures need to be taken to change the position of a certain structural unit?" according to a specific stage of its life cycle. However, reflecting the influence of one structural unit on another, especially tracking what changes and how these changes will be implemented according to the presented list of standard strategies of the ADL matrix will not be objective enough. In addition, using the ADL matrix requires specifying the characteristics of the stages of the life cycle, the positions of the enterprise and strategies in accordance with the current conditions of the development of the world economy.

That is, it is appropriate to choose a matrix that does not have a standard binding to a specific list of strategic actions, is based on indicators, the change of which over time does not change the characteristic features of the product or structural unit being compared. In addition, it allows to track the change in the positions of a certain structural element from such interaction. The BCG matrix can ensure the fulfillment of such conditions. In order to better track the possibility of changing current positions to promising ones, taking into account the peculiarities of the development of individual structural elements according to the stages of the life cycle of not only the industry, but also the product, it is appropriate to choose a modified BCG matrix [16].

The modified matrix allows to determine what measures and in relation to which products and/or business units need to be taken so that problem products appear, and dog products and dairy cows improve their place in the market. This is possible due to the presence of a "dream" product in this matrix. It reflects the characteristic features of certain stages of the enterprise's innovative activity and, accordingly, helps determine the feasibility and possibility of innovative development of its individual components (products, structural units, business processes, etc.), applying certain strategic decisions.

However, to reflect the positions of basic products and the possibility of visually presenting the relationships between them and current products (structural units of the enterprise); it would be appropriate to clarify the modified matrix, namely, to add another square. This square will reflect the products of other enterprises that are no longer in demand or the products of the studied enterprise that were previously on the market and are technologically or structurally related to the existing products of different business units. Accordingly, such a product is on the market with a low development rate or, in general, the market development rate is zero, since the product is withdrawn from sale. The value of the relative market share will also be absent or very insignificant in this case. Therefore, it is appropriate to place such a square to the right of the dogs and call it the "chest" product. The need to allocate, store information and keep records of "chest" products is appropriate, since in the strategic period, the use of their structure, composition, properties can improve the effectiveness of existing products or increase the additional effect, the synergy effect from their interaction, etc. The need to allocate "chest" products is associated with the ability of certain products to return to fashion, as well as the efficiency, functional attractiveness, operational efficiency, etc. of the basic product variants. In addition, by creating an improved product by searching for opportunities to reduce its cost, certain properties or characteristics of the product that are currently relevant may gradually be eliminated.

3.2. Justification of the feasibility of improving the modified BCG matrix

As an example of the feasibility of highlighting the product "chest" in the modified BCG matrix, it is possible to build it for the structural units of the representative enterprise, which is engaged in the manufacture of paving stones and concrete structures.

The activities of the representative enterprise are represented by the following structural units:

– *Strategic business unit 1.* This SBU specializes in manufactured paving stones and elements of its arrangement, respectively, its activities are represented by the following products: paving slabs, paving stones for the yard, curbs, curbs, spillways;

– *Strategic business unit 2* is engaged in the production of paving stones for industrial purposes;

– *Strategic business unit 3.* The activities of this SBU are aimed at the manufacture of poles and fences;

– *Strategic business unit 4* manufactures concrete products for decoration, in particular, (balusters, columns, flower beds, etc.).

The characteristics of the selected business units of the studied representative enterprise are presented in Table 1.

Table 1

Main characteristics of the strategic business units of the representative enterprise (Ozon LLC, Lviv region, Ukraine)*

SBU		Revenue, thousand UAH**	Cost, thousand UAH**	Profit, thousand UAH**	Consumers	Sales Intensity
1		2	3	4	5	6
SBU 1	Paving slabs	98.7	97.5	1.2	Construction organizations that purchase tiles for their own needs or for custom work in the construction of residential buildings; Private and legal entities that purchase paving tiles for their own needs	4 months (June-September)
	Courtyard paving	101.6	100.3	1.3		
	Curbs	58.6	57.6	1		
	Borders	62.5	62.2	0.3		
	Weirs	15.6	14. 8	0.8		
	Total SBU1	337	333.4	4.6		
SBU 2	Industrial paving stones	164	162.7	1.3	Construction organizations that purchase tiles for work under government procurement orders; Private and legal entities that purchase for the arrangement of private business areas near a store, enterprise, etc.	4 months (May-August)
SBU 3	Pillars	31.3	29.6	1.8	Construction organizations that purchase fencing for their own needs or for custom work; Private and legal entities that purchase fencing for their own needs	6 months (May-October)
	Fences	113.4	111.5	1.9		
	Total SBU3	144.7	141.17	3.7		

Continuation of Table 1

	1	2	3	4	5	6
SBU 4	Balusters	25.7	55.8	−30.1	Private and legal entities that purchase garden and home decor	12 months (January-December)
	Columns	17.2	37.2	−20		
	Flower beds	27.3	63.3	−36		
	Sculptures	25	57.6	−32.6		
	Fountains	41.4	78.9	−34.5		
	Total SBU4	136.6	292.8	−156.2		
Total enterprise		782.3	929.8	−147.5		

Notes: * – calculated by the authors based on company data; ** – at the time of calculation 1 USD = 37.87 UAH, 1 Euro = 41.08 UAH

Given the fact that each business unit is clearly specialized, their market positions according to a specific portfolio matrix should be determined in relation to different competitors. However, competitors can produce a wide range of goods and compete with two or three business units of the studied enterprise. Therefore, the ranking of competitors for building the BCG matrix will be different. In particular, for different business units of the studied representative enterprise, the same competitor can be in:

– *in the first case*, the main one – in relation to which it is possible to calculate the value of the indicator relative market share of the studied matrix for all business units;

– *in the second* – a secondary competitor, which is not taken into account when building the BCG matrix, although its market position can be used to outline alternative development directions in the process of finding its own market niches;

– *in the third* – the main competitor for one business unit, respectively, it may not be taken into account when determining the strategic development directions of other business units.

Therefore, specifying competitors for different business units is an important process and requires detailed study through the construction of strategic maps of competitors.

Since the region in which the representative enterprise's products are presented and the area where it is most widely sold is the west of the country, then, accordingly, the competitors of each business unit will be selected from the same region.

As a result of the competitive analysis for SBU 1, a competitor was selected whose activities are similar to the studied enterprise's products of business units 1, 3 and 4 and differ only in one area of activity. A feature of this competitor is that, in parallel with significant volumes of paving stones production, it also produces large volumes of bricks. That is, the studied enterprise and the competitor enterprise differ in their product range in one area of activity. The advantage of the competitor enterprise is proximity to raw materials, which confirms the geographical location of the competitor enterprise. Such an advantage allows it to reduce transportation costs and, accordingly, adjust product prices.

In the process of determining the key competitor of SBU 2, studies were conducted that emphasize that there are about 200 manufacturers of industrial slabs on the territory of Ukraine. However, the capacities of some enterprises have either been reduced or completely liquidated. Given the significant cost and complexity of transporting products, the liquidation of some enterprises and consumers in the eastern regions, etc., the selection of competitors for SBU 2 was also carried out taking into account regional and regional limitations. In this case, the activities of the main competitor SBU 2 are characterized by certain advantages – closer location to the sources of raw materials. However, it also has significant disadvantages, which are manifested in the presence in the structure of the competitor enterprise of other types of products, the volumes of which significantly exceed the volumes of the studied type of paving stones (industrial). Accordingly, business unit 2 of the studied representative enterprise has an advantage in specialization, which allows it to form an acceptable pricing and product policy.

Sales volumes of business unit 3 will experience a significant decrease in 2022–2023, which is associated with military operations, restrictions on certain types of purchases and works, as well as a reduction in construction at all levels. However, since mid-2023, there has been an increase in housing construction volumes, which increases the possibility of expanding sales volumes of this business unit. The main competitor of this business unit does not have the disadvantages inherent in competitors of previous business units, since its activities are also focused on a limited range of products similar to the range of business unit 3. Therefore, increasing the competitiveness of this business unit requires rationalization of the product range. The main competitors of business unit 4 are small enterprises and households, which have a significant advantage compared to the studied business unit, in particular, in cheap labor and flexibility in taking into account the needs of a specific customer. Such advantages allow the competitor to pursue a flexible pricing policy, which, accordingly, necessitates the use of radical measures by the management of the business unit of the studied enterprise to encourage a significant number of consumers. Among such measures of encouragement, as an example, can be: after-sales warranty service of sold products or an increase in their service life.

Having analyzed the activities of strategic competitors of the studied business units, the values of the indicators necessary for building an improved BCG matrix are outlined, which are presented in Table 2.

Graphical visualization of the positions of the business units of the studied enterprise on the improved BCG matrix is presented in Fig. 1.

Table 2

Initial data for constructing positions of business units of a representative enterprise on the improved modified BCG matrix*

Business unit name	Value of indicators for 2023	
	relative market share	growth rate of the industry market, %
SBU 1	353.8/301.2 = 1.17	13
SBU 2	175.5/164.8 = 1.06	8.7
SBU 3	151.9/244.7 = 0.62	9.5
SBU 4	148.9/148.9 = 1	7.2

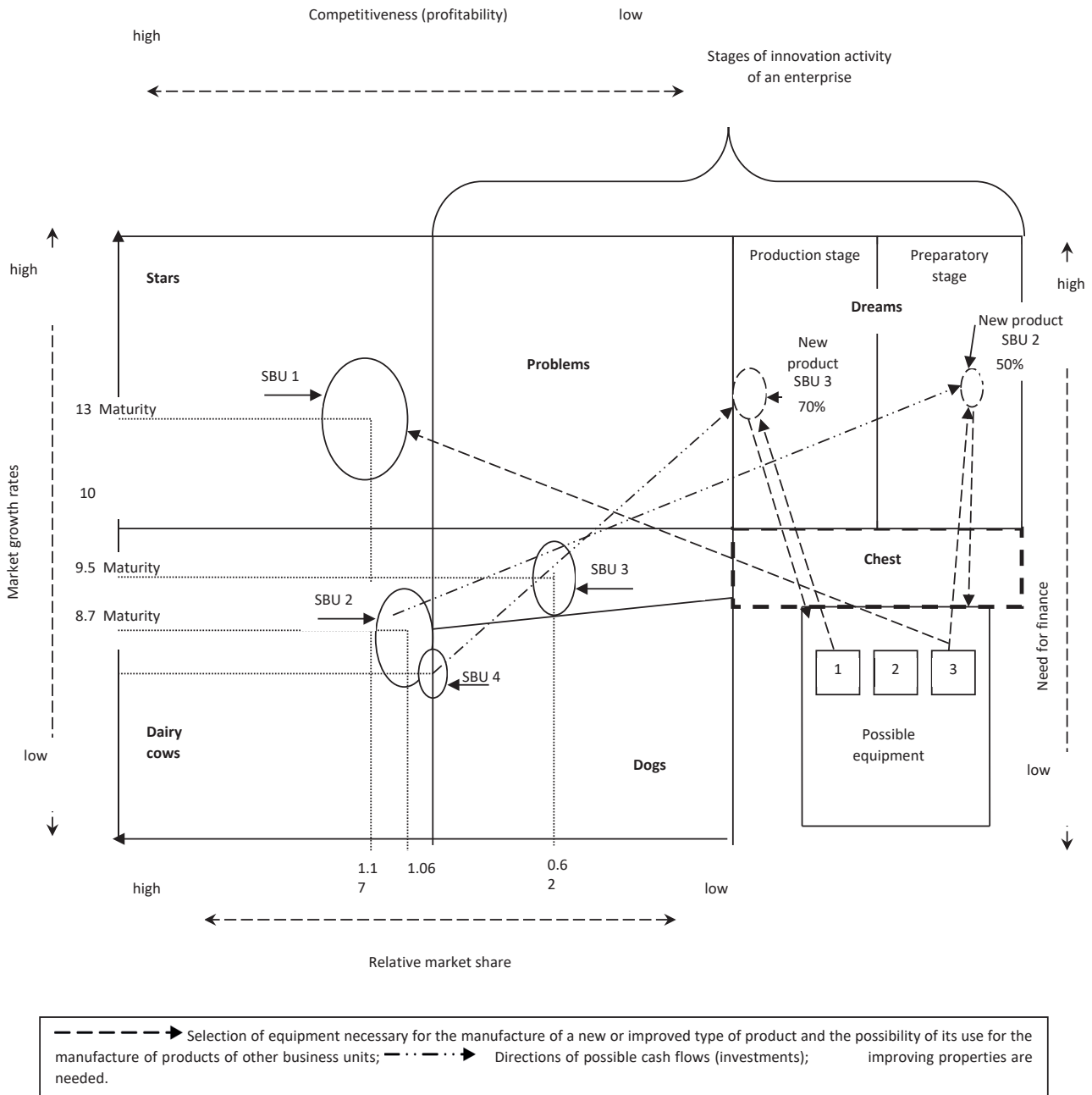**Note:** * – calculated by the author based on data [21, 22]

Fig. 1. Market positions of business units of the representative enterprise on the improved modified BCG matrix (constructed by the author based on the results of evaluating the positions of business units of the studied enterprise based on data [20, 21])

The determined positions of the representative enterprise's business units allow to conclude that, according to the theoretical aspect, the enterprise's portfolio is balanced. However, as for the prospects of strategic development, the situation is extremely unbalanced. In particular, for the effective strategic development of SBUs 2, 3 and 4, it is necessary to take measures to increase their market share. Also taking into account the situation that they are in a market characterized by a low rate of development, one of the following development directions will be appropriate:

– consolidating positions in this market in order to obtain greater profits;

– searching for opportunities to enter other more attractive markets.

In the first case, it will be appropriate to apply a cost reduction strategy, and in the second – differentiation. Moreover, it is advantageous for corporate strategies for the two options to choose a stabilization strategy. In the first case, the key functional strategy will

be production through the search for opportunities to reduce costs, and in the second – marketing and production through the search for opportunities to improve products or reduce certain of their properties. However, in order to clearly determine the expediency of choosing a strategic development direction, it is worth predicting how a change in the positions of business units 2, 3 and 4 will affect the strategic direction of development of the entire enterprise.

Therefore, it is necessary to determine what measures and in relation to which products of business units it is necessary to take so that problem products appear, and the products of dogs (products of business unit 2) and dairy cows (products of business units 3 and 4) improve their place in the market.

If to consider the possibilities and features of the strategic development of the studied business units according to the modified BCG matrix, they require the following actions for effective competitive development in the long term:

– *Maintaining the market position of business unit 1.* Such a position requires certain financial resources to carry out measures to maintain the occupied position (advertising activities, and strengthening measures, and diversification, etc.). Therefore, the funds received from the activities of this business unit 1 will mainly be used by it to maintain its market position. In the strategic period, the development of this business unit is possible in the case of using a differentiation strategy through diversification of the assortment, appearance, properties of the product, etc.;

– *For the current development of business unit 2,* it is appropriate to use partly the funds received from the sale of its own products, partly from the sale of products of business unit 1. To ensure an increase in the size of its own funds, SBU 2 can in the case of the sale of an existing product of this business unit at a reduced price. The search for the possibility of reducing the price for the products of this SBU can be considered through the optimization of its certain properties. For effective optimization of the properties of products of SBU 2, it is appropriate to turn to the products of the "chest" square, which will be discussed below. In this case, the partial uniqueness of the new product from the existing one can reach 50%;

– *To increase the sales volumes of strategic business unit 4* and move it to the "cash cow" position, it is worth applying a differentiation strategy through the inclusion of reinforced concrete products and concrete production in its composition. In this case, it is advisable to merge SBU 4 with business unit 3. With this integration, the studied enterprise will have the opportunity to manufacture the products of business unit 3 cheaper, due to its own production of multi-component chemical additives (plasticizers), which until now were purchased abroad. Accordingly, a new business unit 34 may appear in the problem square, and due to a change in the sales market and, accordingly, will allow these business units (3 and 4) to improve their market position.

The sales volumes of business unit 34, in addition to the existing individual sales volumes of business units 3 and 4, will increase the total sales volumes of the newly created business unit 34 by 35%. This will occur due to the diversification of the product range, the possibility of reducing prices, the use of certain discounts or promotions in the off-season.

Therefore, according to the results of the modified BCG matrix, it will be appropriate to form three business units at the enterprise, combining the efforts of the existing four. The new business units will have a better market position, since, due to the rationalization of their own structure and product ranges, they will be able to operate in new promising markets.

Since the products of strategic business unit 2 of the studied enterprise can be replaced by any other products of this purpose, the long-term development of this business unit depends on finding the opportunity to reduce prices. In addition, an effective direction of development for this business unit would be the possibility of selling products within the framework of a certain state order through relevant tenders at different levels.

The prospects and need for development of this business unit are emphasized by the breadth of the sales market for its products, which is not limited to a specific region, but extends to the entire country. Also, the cessation of hostilities and the development of the country will contribute to an increase in the sales volumes of this business unit. Therefore, in order to form sustainable competitive advantages and find its market niche, the efforts of the business unit management should be directed to improving the quality of products, their certain properties (strength, elasticity, flexibility, etc.). In this case, it is appropriate to pay attention to the previous products of this business unit of the studied enterprise or basic analogues of competitors and/or predecessor products that are in the "chest" square.

To form sustainable competitive advantages in order to capture a significant share of the market, the products of SBU 2 should be, in ad-

dition to being durable, also attractive for the possibility of its universal use, for example, near the relevant shopping, entertainment centers, etc. Therefore, it would be appropriate to combine the production technology of SBU 2 products, taking into account the features of the production of slabs used on runways (such products were produced without additional qualities regarding the attractiveness of the surface) and the production technology of structural paving stones, which SBU 1 specializes in. In this case, it is possible to use the product of the "chest" square – slabs for runways. Given the features of modern techniques and methods of production of products of this type, there is a need to change the equipment on which this product is manufactured. The purchase of the latest equipment, in turn, will allow the enterprise to expand its product range by manufacturing industrial paving stones not only for road surfaces, but also for decorating walls, bridges, ground objects, etc. This will contribute to the enterprise taking a significant market position in the "problem" square, and the possibility of expanding its market share through the sale of products and their demand for the reconstruction of cities, bridges, etc. will allow it to take a competitive position in the "Stars" square. To implement these plans, the enterprise should use a growth strategy through differentiation of individual characteristics of the studied product (industrial paving stones) and reducing costs for other types of products and/or services.

It is also worth considering the possibility of manufacturing other goods of the enterprise on equipment that will be used for the production of improved products (industrial paving stones). In this case, it is possible to apply a hybrid development strategy through the internal diversification and integration direction of development, combining the efforts of SBU 1 with SBU 1. The use of this direction of development will allow to maximally load the production capacities of the plants of business units 1 and 2, and will also open up the possibility of purchasing larger volumes of raw materials, which will allow to reduce their cost.

The use of the measures considered above will allow the representative enterprise to significantly improve its condition, which is traced in the change in the size of business units due to the growth of their sales volumes (Fig. 2).

As is seen, each of the business units has one common direction of development – hybrid growth through the combination of the capabilities of two internal business structures (SBU 1 and SBU 2; SBU 3 and SBU 4). However, for each newly created business structure, the chosen direction will be implemented by different vectors of its achievement. It is for business units 1 and 2 that this direction will be possible through the use of differentiation of its own product, diversification of the characteristics of existing products and improvement of new ones.

And for business unit 34 – reducing costs and strengthening some products with others. By reducing the costs of its products, business unit 34 will be able to sell them at lower prices. This will allow to increase profits, which can be directed to consolidating the positions of business unit 12, expanding the production volumes of these business units, entering new markets or creating a new product.

3.3. Discussion of results

The proposed improvement of the modified BCG matrix by highlighting the "chest" square (Fig. 1) allows to visualize the market prospects of existing, market-promising and previously attractive (basic) business units or products of the enterprise. The obtained positions contribute to the clarification of the relationships between business units and/or products of the enterprise and the validity of making management decisions regarding their development. Accordingly, unlike classical matrices, the proposed model takes into account internal structural reserves and/or their certain competitive advantages. This is especially relevant for enterprises with a high level of internal diversification.
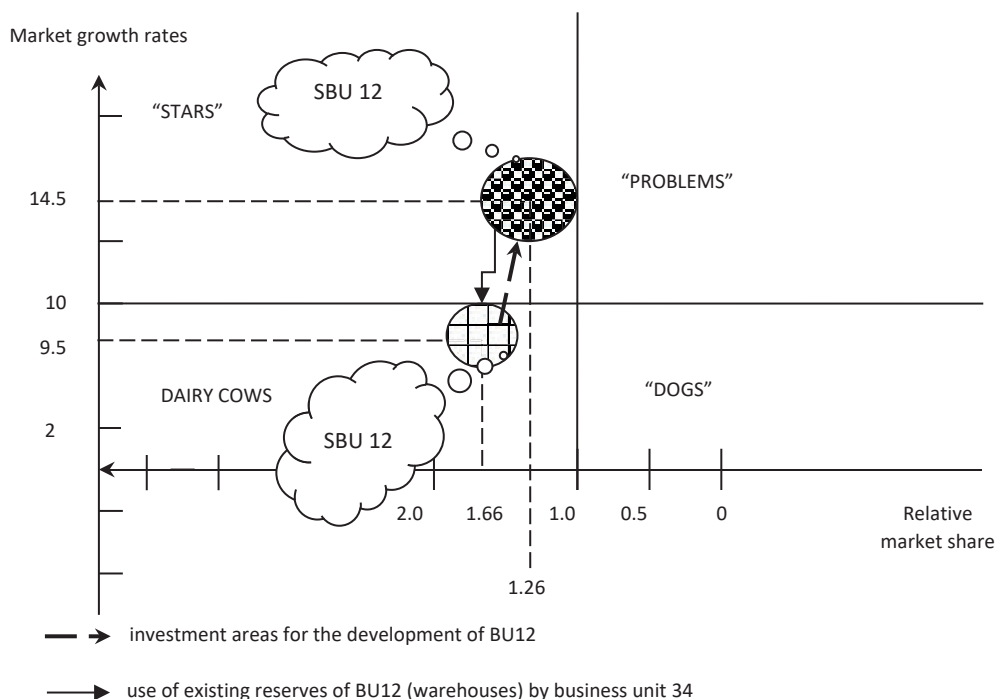
Fig. 2. Market positions of hybrid business units of LLC "Ozon", Lviv region, Ukraine (constructed by the author based on data [20–22])

The scientific novelty of the research results lies in the construction of a model for substantiating strategic decisions taking into account the synergy effect, which, in a specific case, arises as a result of combining SBU 1 and SBU 2, as well as SBU 3 and SBU 4 (Table 1). Having analyzed the alternatives of strategic development directions of business unit 12, it was determined that the option of rapid increase in production capacity would be appropriate for it. Since, despite the high initial investments and the need to attract significant funds, its implementation will allow to enter the market with new products on time without losing consumers. This will contribute to faster receipt of profits, which will allow to promptly cover the investment costs incurred, as well as significantly increase the enterprise's capabilities to expand warehouses, production capacities, etc. The effectiveness of the proposed measures is confirmed by the obtained values of the indicators. In particular, the profitability index at the time of payback of the proposed design solutions, in the case of rapid increase in production capacities (with the integration of the efforts of SBU 1 and SBU 2 and the use of the properties of the "star" product), is 1.07. The value of this indicator with a gradual increase in production capacities (separate functioning of SBU 1 and SBU 2) will be 1.01. Also, the payback period in the first case is 2 years and 10 months, and in the second – 3 years and 2 months.

The calculation of the effectiveness of the strategic direction of development of the strategic business unit 34 confirms the effectiveness of the chosen direction of selling products at prices lower than market prices by 7%, which will allow increasing the market share by 8.9% and profit by 36.98%. The weaknesses of the development of strategic business units 34, at the same time, are the lack of funds and the necessary premises. In order to eliminate the weaknesses, it is proposed to establish relationships between the activities of the formed business units 12 and 34 on the basis of a synergistic effect. Successful and correctly justified strengthening of the activities of some business units at the expense of others allowed the studied enterprise to increase sales by 320 thousand UAH, the amount of profit by 175.2 thousand UAH, reducing the amount of loss of strategic business units, and also reducing fluctuations in demand for the enterprise's products during the year. In this case, one of the options for forming a synergistic effect was

to offer cheaper or larger quantities of SBU 34 products subject to the purchase of a certain quantity/a certain amount of SBU 12 products. The reinforcement effect was also implemented in the case of optimizing SBU 12 production inventories in order to increase the possibility of increasing warehouse space for storing SBU 34 products. In addition, the studied enterprise received certain long-term competitive advantages. In particular, due to the promptness of entering the market with new products, it significantly increased its share (Fig. 2). In addition, it reduced costs due to its own production of additives to the main products and the ability to store significant stocks of products at the enterprise. It also received the opportunity: to increase the quality of employees by reducing their turnover; to increase sales volumes of related goods and services. These measures contributed to increasing profits, improving the image of the enterprise, etc.

Thus, by implementing the strategic development directions determined using the improved modified BCG matrix (Fig. 1), the studied enterprise will gain a better market position (Fig. 2). Since, through the rationalization of its own structure and balancing of product ranges, it will be able to operate in new markets with a significant time lag from competitors.

That is, the application of the proposed matrix will allow: to eliminate duplication of functions; to shorten the decision-making cycle; to strengthen the synergistic effect; to ensure targeted use of resources; to improve the enterprise's position in the market by reducing the investment cycle; to form a basis for long-term competitive advantage. Thus, the results obtained not only have applied significance, but also expand scientific approaches to the formation of a balanced competitive development portfolio for enterprises with a high level of diversification.

The main limitation of research is that the proposed model for the formation of a balanced development portfolio is focused on enterprises with a clearly expressed diversification of product areas. That is, its effectiveness decreases in cases where products or business units operate in isolation, without the possibility of creating synergy. In addition, the model takes into account a limited range of internal and market factors, which may require adaptation for dynamic industries with rapid technological change.

Prospects for further research are:

– expanding the list of criteria and indicators for assessing the interconnection of products within the portfolio;

– adapting the model to industry specifics;

– developing digital tools for visualization and automated updating of the portfolio structure;

– empirical verification of the results based on data from several companies of different types.

4. Conclusions

The necessity of using portfolio analysis matrices as a basis for ensuring competitive strategic development of enterprises with a balanced and optimal portfolio of goods, investments, technologies, areas of activity, etc. is substantiated. The features of popular portfolio analysis matrices are studied and the possibilities of their use for optimal increase of competitive advantages of the enterprise with minimal costs in the process of rationalization of its own product and activity portfolio with strategically promising positions (goods, areas of activity, business units, etc.) are critically assessed.

Based on the results of the conducted research, it is proposed to improve the BCG portfolio analysis matrix by isolating another square for "chest" goods. These goods are characterized by an absent or small share in the market with low development rates. Such a position is due to the lack of demand for these goods, their moral obsolescence, changes in market trends, fashion, etc. The need for their allocation is caused by the sufficient presence in these goods of certain features, properties, characteristics that are not inherent in modern prototypes, however, are prospectively relevant in individual cases.

The feasibility of choosing an effective option for balancing the enterprise's product portfolio using the improved BCG matrix is emphasized by the results of effectively increasing the competitiveness of products and business units of the representative enterprise. In particular, it is confirmed by using the modified BCG matrix, the market positions of the business units of the representative enterprise are determined and the directions of their strategic development are substantiated. Taking into account the growth in construction volumes, it is determined that business unit 2 of the studied enterprise, which is engaged in the production of paving stones and concrete products, will be able to expand its sales volumes by reducing costs. Or it will be able to improve its positions by entering new sales markets through differentiation of the qualities of the product range. To consolidate the effectiveness of the strategic direction of development of the studied enterprise, business units 3 and 4 must also reorganize their activities: 3 – by reducing costs; 4 – reviewing costs and pricing policy or reducing the range.

These measures require significant funds. Therefore, in order to specify the relevant measures and determine possible sources of funds and the order of their implementation, the selected business units are depicted on the improved modified matrix of the Boston Consulting Group. Taking into account the obtained positions of the business units, the strategic directions of further development of the entire enterprise and its specific business units are defined and described. The content of the defined strategic directions of development at the general level consists in the formation of hybrid structures by integrating strategic business units 1 and 2 and 3 and 4 into two business units. And at the business level, it comes down to diversifying the activities of newly created business units.

The products of the selected square "chest" of the proposed improved BCG matrix contributed to the definition of measures to improve the products of business unit 2. The content of the proposed measures allowed to improve, in addition to the technical properties of the products "industrial paving stones" borrowed from the products of the predecessors "runway slabs", also the external and aesthetic characteristics, which will contribute to the expansion of their areas of use (arrangement of parking lots, bridges, etc.). The selected areas

of development significantly improved the positions of the business units of the studied enterprise, changing their location from the squares "dogs" and "dairy cows" to "dairy cows" and "stars", respectively. The changed positions of the business units of the studied enterprise and the obtained opportunities to maintain these positions emphasize the strategic competitiveness of the enterprise.

Conflict of interest

The authors declare that they have no conflict of interest regarding this research, including financial, personal, authorship and other, which could affect the research and its results presented in this article.

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The manuscript has no linked data.

Use of artificial intelligence

The authors confirm that they did not use artificial intelligence technologies in creating the presented work.

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