

USE OF MATRIX ANALYSIS METHODS IN THE MARKETING STRATEGY OF ENTERPRISES

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Abstract. *This article examines decision-making about the position in the market, the scope of application of the BKG matrix, the possibility of assuming instability, the difficulty of taking into account the life cycles of each product and technology, and the possibility of determining the position based on the market share in the competition.*

Keywords: *enterprise, market, product, competition, environment, strategic analysis.*

Introduction. Strategic analysis is one of the main stages of strategy development, and it is a means of turning the information obtained during the environmental analysis into a strategic plan of the organization.

The main tools of strategic analysis include analytical analysis, comparison, matrix (portfolio) analysis, factor analysis and modeling.

Matrix (portfolio) analysis is one of the specially created tools of strategic analysis. The common feature of these methods is to enter the analyzed factors into a matrix consisting of several cells. Matrices are classified based on the number of rows, compared factors, shapes, and summaries. A portfolio matrix is a two-dimensional graph that defines the position of a diversified company.

One of the most widely used methods for evaluating a company's performance is portfolio matrix evaluation. The portfolio matrix is a two-dimensional graph that shows the strategic position of each business line of a diversified company. In general, the following matrices are widely used in strategic analysis:

PEST (PESTEL) matrix is a 4-cell (6-cell) matrix aimed at preliminary study of external environmental factors;

SWOT matrix is a 4-cell matrix for evaluating the company's strengths and weaknesses, opportunities and risks;

BCG matrix - "growth-contribution" 4-cell matrix;

GE \ Mc Kinsey matrix - "market visibility - business situation" 9-cell matrix;

ADL/LC matrix - "life cycle" 15-cell (20-cell) matrix;

SHell\DPM matrix - "field visibility - competitiveness" 9-cell matrix;

Ansoff matrix - "market-product" 4-cell matrix;

Porter's matrix - "five competitive forces" matrix and others

The stage of strategic analysis involves the analysis of the socio-economic situation, the forecast of the development of socio-economic parameters, the analysis of development conditions and potential.

The historical first model of corporate strategic planning is the growth-market share model, commonly known as the BKG model. This model reflects the specific situation of a certain type of business in the strategic area and is found using two coordinate axes. In this case, the first coordinate axis is used to find the growth rate of a certain product market, and the second one is used to determine the relative share of the enterprise in the considered product market. The

emergence of the BKG model is related to the logical conclusion of the scientific work conducted by the consulting company "Boston Consulting Group". This model quickly gained popularity among the business community, and by 1970, the BKG approach was used in more than 100 enterprises. By the end of the 70s, there were cases where the BKG concept became a vital necessity for enterprises trying to achieve something.

The BKG matrix of portfolio evaluation consists of four squares. The matrix is built on the basis of indicators of the growth rate of the network and the relative share of the market. Each economic unit is represented in one of the squares in the matrix in the form of a circle. In this case, the size of the circle reflects the share of income in the total portfolio of the company.

Expected solutions of the BKG model depend on the situation of a certain type of business in the strategic space, which is generated using two coordinates. As mentioned above, the essence of the growth rate of a certain product market is reflected with the help of ordinate curves. The use of these indicators in the BKG model is important for three reasons:

1. If the growth rates of the market in question are higher than those of other markets, then the enterprise that is organizing its own business in a certain sector can achieve a relatively small increase in its relative share. To achieve this, the company must increase the pace of business recovery. In order to gain a large market share, it is necessary to force such competitors to reduce their business.

2. Generally, a growing market is expected to return investments to this type of business in the near future.

3. Expected growth rates of the market have a negative impact on cash flow, even in times of high profit margins, because business development requires anticipated investments.

The BKG matrix uses two criteria: the first criterion is the growth rate of the target segment as an indicator of attractiveness, and the second is market share relative to the most dangerous competitor as an indicator of competitiveness. This creates a two-entry table divided into four quadrants by dividing lines.

First, the main line that separates high- and low-growth markets is the growth rate of the gross national product in natural indicators relative to the "market growth" axis, or the growth rate of the different segments in which the firm operates. corresponds to the average value of growth rates.

Second, the dividing line for the "market share" axis is usually drawn through the 1 or 1.5 points. If the market share is higher than this figure, it is considered large, otherwise it is considered small.

If both hypotheses are correct, four groups of commodity markets corresponding to different priority strategic goals and financial needs can be distinguished.

"Milky Cows"(slow growth-high share): products that can bring in more than the amount required to maintain market share. They are the sources of financial means for the development of diversification or research. Here, the primary strategic goal is to "harvest the harvest."

"Dogs"(slow growth-small share): the most pessimistic position in the market. They are usually at a disadvantage in terms of costs and thus have little chance of gaining market share, and the market competition is largely over. Usually, the storage of such goods leads to large financial costs, and the probability of improvement of the situation is small. The preferred strategy in this case is reinvestment and cost reduction.

"Question Marks"(fast growth-small share): goods in this group require large funds to support growth. Although their situation is not as good as that of the leader, they have the

possibility of some success because the market is still expanding. If these goods are not supported financially, they will become "dogs" as they move through the life cycle. Therefore, there is an alternative: increase market share or reinvest.

"The Stars"(fast growth-high share): leading goods in a fast-growing market. These commodities also require large amounts of capital to support growth. but because such goods are competitive, they bring huge profits; As the market matures, it replaces the previous "milk cows".

Dotted lines represent the costs of these objects.

Straight lines - determine the direction of distribution of funds received from "milk cows".

In the future, the scope of application of the BKG matrix will expand somewhat. It began to be used in the analysis of the position of competing firms in the same industry. In addition, the expression of competitors belonging to the group of "wild cats" in the form of "interrogation" or "complex baby" can be found in many foreign literatures. In some literature, the location of the horizontal arrows is described in order of growth from left to right. Due to this, it is necessary to look positively at meeting this BKG matrix in a slightly improved image.

So, using the given BKG matrix, 2 tasks can be solved:

- 1) making a decision about the position in the market;
- 2) To receive information about the financial support of the SXZ.

At the same time, there are some disadvantages in using the BKG matrix.

In particular, it is possible to assume instability, it is difficult to take into account the life cycles of products and technologies for each SXZ. Therefore, the BKG matrix is effective if it is a reliable measure of future growth rates and it is possible to determine the position in competition based on market share.

SXZ is a unit that solves assigned strategic tasks, which adapts to external environmental conditions, takes into account future market and demand changes, and implements a strategy that is effective for the development of the company.

SXM is an organizational structure provided with all authority and responsibility in the internal environment of the company.

Levers of strategy implementation appear as a holistic system that is interconnected and complements each other. In determining the strategic plan, its purpose, style, tactical changes, activities take a leading place. From this point of view, we will consider the process of strategic planning in a broad scale.

The levers used in the implementation of the strategy can be expressed in the following system: organizational concept, tactics, policies, activities, regulations and legal framework.

If current and future competition becomes more complex, this two-dimensional matrix will need to represent relatively stable indicators as much as possible.

Research methodology. Systematic approach, abstract-logical thinking, grouping, comparison, factor analysis, selective observation methods were used in the research process.

Analysis and results. Analysis according to the BKG method allows to determine the position of the enterprise in the structure of a single portfolio, to forecast promising strategies.

Fast-growing areas need investment, while slow-growing areas have excess funds.

Advantages of the BKG matrix:

The matrix is simple and understandable to everyone;

Visually shows the status of existing businesses in the portfolio;

It is convenient for leaders to hold a lecture (conference);

The calculations are not complicated;

It is relatively easier to draw a conclusion based on the matrix.

Disadvantages of the BKG matrix:

Average does not accurately represent companies with relative market share;

The market situation of a slow-growing network leader does not guarantee it the qualities of "cash cows";

Investing in "stars" is not necessarily more attractive than investing in "cash cows" that are making good returns;

In order to comprehensively assess the long-term attractiveness of business groups, company strategies should not be limited to analyzing industry growth rates and relative market share;

Relative market share and utility are not as closely related as the learning efficiency curve illustrates.

In the early 1970s, General Electric and McKinsey & Co. An analytical model called GE \ Mc Kinsey appeared, which was proposed in collaboration with a consulting group. The GE\Mc Kinsey model is in the form of a matrix and consists of 9 cells, which is organized to compare and describe the strategic analysis of the economic activities of the corporation. By the 1980s, it had become the most popular multifactor business strategic situation analysis model.

In order to have a formalized indicator of network attractiveness, the weight and importance of the selected factors are determined, taking into account their role and importance in the company's management and diversification strategy. The sum of the factor weights is equal to 1.0. A weighted rating of network attractiveness is found by multiplying each factor by its weight. In this case, the weighting scale of the factors varies from 1 to 3 or from 1 to 10. For example, the weighted rating of the "market size and growth forecast" factor of the market's industry attractiveness factor is 0.75, and the rating of this factor is 5, which is the number found by multiplying its weight by 0.15. This approach is also used to find a quantitative expression of the company's strengths / other factors of competitiveness. An attractiveness rating is also calculated for each network in the company's order portfolio.

Table 1

Network attractiveness matrix enterprise strengths (GE experience).

No	Factors of network attractiveness	Weight	Rating	Weighted rating
1	Market size and its growth forecast	0.15	5	0.75
2	Seasonality and periodicity factors	0.10	8	0.80
3	Technological thinking	0.10	1	0.1

4	Opportunity and risk	0.15	1	0.15
5	The intensity of competition	0.25	4	1.0
6	Need for capital	0.15	2	0.3
7	The usefulness of the network	0.10	3	0.3
8	Social, political, legislative and environmental factors	0.10	7	0.7
	Network attractiveness rating	1.00		4.1

Factors of network attractiveness

- Market size and its growth rate
- The rate of profit in the network
- Competitive intensity
- Seasonality
- Cyclicity
- Technology and capital requirements
- Social, environmental, legal and human factors
- Emerging opportunities and threats
- Network entry and exit barriers
- Enterprise competitiveness factors
- Relative market share
- Basic problem solving skills
- Comparison of competitors' profit margins
- Offering quality goods and services compared to competitors
- The relative status of comparative costs
- Knowing the markets and buyers
- Technological possibilities
- Management quality

Implications of the GE matrix for company strategy. One of the most significant effects of the matrix on the company's strategy is to determine the preferred directions for investment. Businesses in the upper left three squares have higher long-term attractiveness. They are important to the company. "Growth and development" is the main strategic direction for these businesses. In this case, businesses located in the "strong - high" square are more likely than others to direct investments.

Then businesses located in the lower left corner to the upper right corner (diagonally) are preferred for the company. They are usually given moderate preference. These businesses deserve priority refinancing and their market position is protected. If promising opportunities open up for such an enterprise, its investment advantages can be further increased and it can be allowed to carry out offensive strategic actions.

Businesses typically located in the lower right corner are candidates for waiver and elimination.

The ADL/LC model was developed by Arthur D. Little (ADL), a well-known management consulting firm. It focuses on network life cycle (LC) stages.

Accordingly, the competitive position of the company is compared. As a result, a matrix consisting of 15 cells (20 cells in some authors) is formed.

A matrix of 15 cells can be used to determine the winner that is forming in the market. In this matrix, enterprises are placed taking into account their strengths and the evaluation stages of the network. Company A in form A can be called an emerging winner, company C is a potential failure, E is an established winner, F can be included in the "milk cows" group, and G can be included in the "dogs" group.

The strategic planning process is carried out in 3 stages. In the first stage, which is called "normal" (natural) selection, the strategy of the business type is determined only by its position in the ADL matrix. The network of "natural selection" includes several cataracts.

In the second stage, the situation of the most specific type of business in the framework of each "natural selection" suggests the character of "specialized selection".

In the third step, the contribution of the ADL model to the development of the strategic planning methodology is represented by a carefully selected strategy. The choice of such a strategy is a step from strategic planning to operational planning. ADL offers a set of defined strategies suitable for each "custom choice".

The ADL offers 24 similar strategies.

Table 2

Refined strategies offered by the Arthur D. Little Company

A Backward integration	Nationalization of goods
B Business development abroad	N Methods and functions of efficiency
C Development of production forces abroad	O New products / new markets
D Rationalization of the sales system	P New products/same markets
E Recovery of productive forces	Q Product rationalization
F Export of this product	R Rationalization of the product range
G Proper integration	S Pure living

H Disbelief	T Those products/new markets
I The initial stage of market development	It is the same products/the same markets
J Overseas Licensing	V Effective technology
K Tula rationalization	W Traditional effectiveness of depreciation
L Market penetration	X Abandonment of production

A combination of the 24 defined strategies listed above is formulated according to the situation of the diversified company and the stage of the market life cycle.

Leading-birth. This is usually a profitable situation. Its natural development is aimed at increasing market share. (B,C,E,G,L,N,O,P,T,V) or maintaining the situation (E,I,L) can be achieved by a combination of strategies.

Lead-growth. Brings income, but not always. Generates net cash flow. The natural development of the situation is achieved using the following strategies. It is recommended to maintain the status quo - to achieve leadership in pricing, ie (A,C,N,U,V,W) strategies.

Strategies are recommended for other situations such as lead-saturation, lead-aging, strong-birth, strong-growth in the same order.

It will not be correct to evaluate the order portfolio by one type of matrix. Each matrix has its own pros and cons. The matrices represent the strengths and weaknesses of the order portfolio. If there is a need to evaluate the order portfolio with high accuracy, it is recommended to use all three matrices.

Evaluation of the attractiveness of the network is carried out in three directions.

The attractiveness of each network available in the order portfolio is determined. In this "Is this network suitable for the company?" the question is appropriate.

The attractiveness of each network relative to other networks is determined. In this case, "Which sectors in the order portfolio are more attractive and which are less attractive?" the question reflects the purpose. Determining the weight of networks in terms of attractiveness is the basis of resource allocation.

The attractiveness of all networks as a group is determined. In this "How attractive is the composition of networks?" the question is appropriate. Enterprises whose main revenue is aligned with unattractive industries should reorganize their order portfolio.

REFERENCES

1. Decree of the President of the Republic of Uzbekistan "On approval of the strategy for innovative development of the Republic of Uzbekistan for 2019 - 2021" dated September 21, 2018 No. UP-5544. T.2018.
2. Musaeva Sh.A. Integrated marketing communication Study guide "Mahorat" publishing house, Samarkand - 2022
3. Musaeva Sh.A., Usmonova DI Innovative marketing Study guide "TURON EDITION" 2021.
4. S Musayeva [WAYS TO IMPROVE DEMAND FORMATION AND SALES PROMOTION AT GOLDEN OIL LLC](#) Science and innovation 1 (A5), 215-220

5. MS Azimovna [Development of innovative marketing strategies in agriculture](#) Web of Scientist: International Journal of Scientific Research 3 (02), 538-544
6. MS Azimovna, RN Ulugbekovna [Development Conditions and Modern Trends of Business Tourism Worldwide](#) INTERNATIONAL JOURNAL OF BUSINESS DIPLOMACY AND ECONOMY 2 (2), 63-66
7. Kotler F. i dr. Basic marketing. - M.: LLC "ID Williams", 2013.
8. MS Azimovna [THE MAIN RESULTS OF THE LABOR PRODUCTIVITY OF THE STAFF OF THE HOTEL "BILLURI SITORA" LLC](#) Galaxy International Journal of Interdisciplinary Research 11(1), 348-352
9. MS Azimovna [THEORETICAL ASPECTS OF MARKETING TOOLS IN INCREASING THE INTERNATIONAL COMPETITIVENESS OF THE TEXTILE ENTERPRISE](#) Science and Innovation 2 (1), 47-53
10. S Musayeva [MECHANISMS OF FUNCTIONING OF LOGISTIC STRUCTURES](#) Science and innovation 2 (A2), 196-202
11. S Musayeva [WAYS TO IMPROVE THE POLICY OF DISTRIBUTION OF GOODS IN FURNITURE PRODUCTION ENTERPRISES](#) Science and innovation 2 (A2), 152-156
12. S Musayeva [IN THE CONDITIONS OF MODERNIZATION IN UZBEKISTAN THE NEED TO EVALUATE ENTERPRISES](#) Science and innovation 2 (A2), 35-40
13. MS Azimovna [Ways to Improve the Use of Marketing Information in the Assessment of "Stekloplastik" LLC](#) American Journal of Economics and Business Management 5 (11), 338-343
14. MS Azimovna [Efficiency of advertising activities of trading organizations and ways to increase IT](#) Asian Journal of Research in Social Sciences and Humanities 12 (3), 93-97
15. Usmanov IA, Musayeva Sh.A. Features of marketing activities in the construction industry of the Republic of Uzbekistan. NOVATEUR PUBLICATIONS JournalNX- A Multidisciplinary Peer Reviewed Journal ISSN No: 2581 - 4230 VOLUME 7, ISSUE 1, Jan. -2021 <https://repo.journalnx.com/index.php/nx/article/view/793>
16. Usmanov IA Musayeva Sh.A. Features of marketing organization in the market of construction services. Service. Scientific journal. - Samarkand. No. 2, 2021 - pp. 86-90.
17. Usmanov IA Study of the Provision of Construction Facilities with Management Personnel. INTERNATIONAL JOURNAL ON ORANGE TECHNOLOGY. Volume: 03 Issue: 9 | Sep 2021. p.31-33 <https://journals.researchparks.org/index.php/IJOT/article/view/2171>
18. Usmanov IA, Jumanov Sh.N. Ways to improve quality control of construction and installation works. Oriental renaissance: innovative, educational, natural and social sciences scientific journal. ISSN 2181-1784. Volume 1, Issue 10. November 2021. – P. 651-658 <https://cyberleninka.ru/article/n/ways-to-improve-quality-control-of-construction-and-installation-works>
19. Usmanov IA Buriev HT A development strategy for the construction industry in Uzbekistan: organizational aspects of implementation. International scientific and technical journal. Real estate: economy, administration. Moscow, MGSU-No. 4 / 2021
20. Usmanov Ilkhom Achilovich, RESEARCH OF MARKETING ACTIVITIES OF S SHARQ-UNIVERSAL-SMK LLC SCIENCE AND INNOVATION INTERNATIONAL SCIENTIFIC JOURNAL VOLUME 1 ISSUE 6 UIF-2022: 8.2 | ISSN: 2181-3337

21. Usmonova Dilfuza Ilkhomovna, EXAMINATION OF THE INVESTMENT PROJECT OF LEASING COMPANIES SCIENCE AND INNOVATION INTERNATIONAL SCIENTIFIC JOURNAL VOLUME 1 ISSUE 7 UIF-2022: 8.2 | ISSN: 2181-3337
22. Musaeva Sh.A. Marketing research. Textbook "STAR-SEL" LLC publishing and creative department. Samarkand-2023