



AUTO INDUSTRY EXPORT ENTERPRISES MANAGEMENT ACTIVITY STRATEGIC MARKET DEMAND ADJUSTMENT ECONOMETRIC MODELING

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ABSTRACT

In the context of globalization, the econometric modeling process of adapting the export management strategy of auto industry enterprises to the requirements of the foreign market and the processes related to its organizational factors are analyzed.

Introduction

In the conditions of globalization, industrial enterprises try to offer products and provide engineering services aimed at ensuring competitiveness in the foreign and domestic markets. In turn, the system of measures aimed at implementing an open economic policy of many countries provides the basis for reducing the existing barriers for enterprises to enter foreign markets.

However, despite the existing opportunities and relevant conditions, industrial enterprises face complex problems in the implementation of foreign market activities. This process requires the improvement of the system of coordinating the management structure of industrial enterprises with the foreign market situation.

The effectiveness of the export activity of industrial enterprises has a long-term development strategy, which makes it possible for the enterprise to occupy a stable and strong position in the foreign market. In the current stage of modern market relations and globalization, despite the fact that there are many strategies used by industrial enterprises in their export activities, these strategies still do not allow industrial enterprises to adapt to the changing requirements of the external and internal market environment.

Therefore, it is appropriate to research the ways and relevant factors of coordinating the foreign market activity of auto industry enterprises through the econometric modeling process of adapting the export activity management strategy of auto industry enterprises to the requirements of the foreign market.

Materials and methods

Econometric modeling of the adjustment of export activity management strategy of industrial enterprises to the requirements of the foreign market and the study of its economic importance was carried out by the method of linear statistical connection in economic data.

Results and discussion

The foreign market strategy management mechanism of the auto industry enterprise serves to form a target mission based on the attractiveness of the foreign market. This element of the management of the foreign market activity of the auto industry enterprise provides an opportunity to determine the importance of the segment of the auto industry enterprise in the foreign market (selected group of consumers, the preferences of the consumer environment in relation to auto industry products, and the stability of existing needs).

The number of cars exported abroad by the "UzAuto Motors" enterprise in 2018-2020, forecast indicators for 2021-2025 and the results of analysis related to their mathematical model serve to justify this opinion.

The number of cars exported abroad by the enterprise "UzAuto Motors" in 2018-2022 (Table 1).

Table 1

The number of cars exported abroad in 2018-2022 [3]

№	Years	Export volume, pcs
1	2018	4 625
2	2019	13 120
3	2020	18 545
4	2021	34 910
5	2022	41 490
Total		112 690

Based on the data of Table 1, we will create a graph and a mathematical model of the number of cars exported abroad in 2018-2022. His graph is as follows:

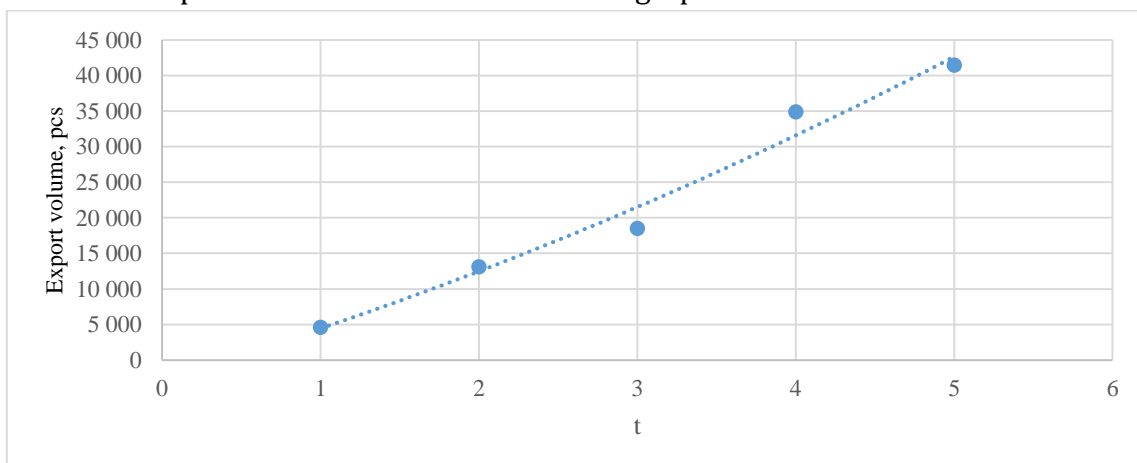


Figure 1. Number of cars exported abroad in 2018-2022 [4]

The points in Figure 1 represent the number of cars exported abroad in 2018-2022, and the line represents the following mathematical model that represents it:

$$y = 507,86t^2 + 6504,9t - 2563. \quad (1)$$

This model has a reliability level of $R^2 = 0.9768$, indicating that it fits the available data with a very high degree of accuracy.

It can be seen from the model (1) that if the value of t increases by one unit, the value of y increases by 7012,76 or 7013 units.

(1) model is an increasing polynomial of the 2nd degree and has a positive character, that is, it indicates that the demand for the company's products is also very high in foreign markets.

Based on the data of Table 2 and model (1), we determine the number of cars that can be exported abroad in the following periods, including 2023-2027 (Table 2).

Table 2

Forecast of the number of cars that can be exported abroad in 2023-2027 [4]

№	Years	Export volume, pcs
1	2023	54 749
2	2024	67 856
3	2025	81 979
4	2026	97 118
5	2027	113 272
Total		414 944

It should be noted that, based on the data in Table 2, there is a possibility to increase the number of cars exported abroad by 2.7 times in 2027 compared to 2022, and by 3.68 times in 2023-2027 compared to 2018-2022. In order to achieve results no less than these indicators, it is necessary to strengthen communication with partners and find new markets as a priority goal.

Based on the above information, the following generalized graph can be drawn (Figure 2).

The model (line) in Figure 2 (2) can be interpreted as a mathematical model of the future development of the enterprise. The process of forming the target mission of the auto industry enterprise according to the criteria of attractiveness of foreign market activity follows the strategy of global focus. It provides an opportunity to choose the directions of activity for entering foreign markets.

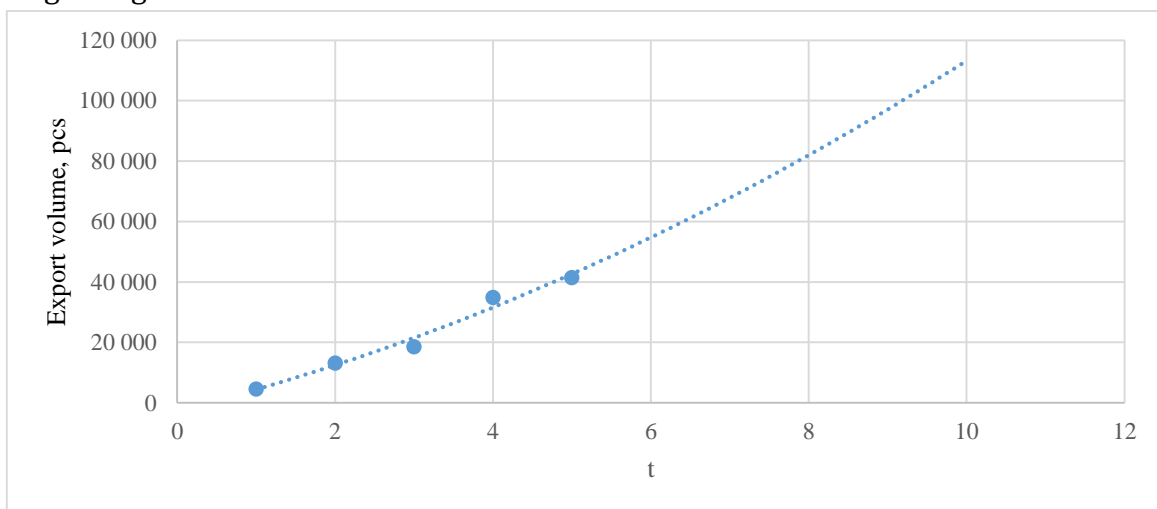


Figure 2. The number of cars exported abroad in 2018-2022, forecast indicators and mathematical model for 2023-2027 [4]

The method of expert evaluation is to determine the capacity of the foreign market, the quantitative limits of the segment (how many goods and at what price, the volume of real and



potential consumers), the availability of the segment (the possibility of forming channels for the distribution and sale of goods, the availability of storage areas, the role of the appropriate transport and communication system in this regard) provides an opportunity to summarize information about.

The fact that the process of aligning the targeted development strategy with the requirements of the foreign market situation is provided with information (the creation of a data bank for the segment, the ability to obtain the necessary market data), it creates the basis for protection from competition (the correct assessment of the opportunities for commercial success in a certain segment with an objective assessment of the capabilities of competitors)[2].

Directing the production development system to the target market serves for the profitability of the existing segment in the foreign market (increasing the total mass of profit, increasing the efficiency of invested capital)[1].

The system of strategic and tactical development of the foreign market activity of "Uzavtosanoat" enterprise is coordinated with the internationalization strategy developed within the framework of new channels of international sales of products. Within the framework of the formation of an appropriate export portfolio for each direction of foreign markets, the chosen diversification direction is determined, and a set of all goods and services offered by the auto industry enterprise is formed according to the results of the analysis.

Conclusion

Adapting the export management strategy of auto industry enterprises to the requirements of the foreign market is one of the most important tools for analyzing portfolio matrices related to foreign market activity, market situation, forecasting its development and developing strategies for entering it. Matrices reflect certain variable characteristics of the studied object.

In the analysis of the export activity management strategy, the intersection of the column related to market activity forms a cell called the quadrant of the market matrix. A clear description of the possible strategy is reflected in the quadrant.

Thus, the general principles of building export management strategy analysis matrices include the following:

- in the matrix related to export activity, the influence of two selected factors (indicators) occurs at the intersection, therefore, in the matrix analysis process, the two selected indicators highlight the interaction of market demand and available opportunities;

- indicators that form the basis of matrices fall into two categories:

- 1) factors describing the target market of the enterprise (market growth rate, market attractiveness, network life cycle stage);

- 2) factors that characterize the enterprise directly in its target market to a certain extent, for example: the relative market share of the enterprise in the target markets, the competitiveness of the enterprise in the target markets, the position of the enterprise in the market.

The processes of development of the export activity of "Uzavtosanoat" enterprises and the factors affecting it depend on the system of implementation of the vertical integration strategy of industrial enterprises, and under the influence of this system, complex technical and economic bases for choosing an alternative option related to the implementation of export activities are developed. At the same time, the mechanism for the formation of the strategy for



the management of the export activity of auto industry enterprises provides an opportunity to clarify the processes related to the formation and resolution of the dilemma of choosing a technological model for the implementation of this task.

"Uzavtosanoat" enterprises are forming a system for coordinating export activity management strategy with foreign market requirements:

- to study the level and quality of fulfillment of obligations by the auto industry enterprise under contracts concluded with foreign partners;
 - assessment of the dynamics of export-import operations of the auto industry enterprise for the reporting and previous periods;
 - assessment of the level of use of the funds involved to fulfill obligations under export contracts;
 - evaluation of working capital, including the cost structure of export-import operations, study of the efficiency of operations from the point of view of the profitability of working capital;
 - evaluation of financial results;
- determining the effect of the results of export-import operations on the financial condition, solvency and profitability of the enterprise.

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