

**PROSPECTS OF USING MARKET INSTRUMENTS IN ENSURING THE
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Abstract. *The electrical industry plays a pivotal role in national economic development, energy security, and technological modernization. However, enterprises operating in this sector often face increasing risks linked to market volatility, resource constraints, global competition, and regulatory shifts, which necessitate a comprehensive system for ensuring economic security. This paper explores the prospects of using market instruments as an effective mechanism to safeguard and enhance the economic security of electrical industry enterprises. By analyzing both domestic and international practices, the study identifies key tools such as energy futures and derivatives, insurance mechanisms, public-private partnerships, investment funds, and green finance initiatives that can mitigate risks and stabilize enterprise development. Special attention is given to how market-based approaches foster resilience through diversification of financing sources, efficient allocation of capital, and incentives for innovation. Methodological frameworks are proposed for assessing the effectiveness of these instruments in strengthening competitiveness, reducing financial vulnerability, and ensuring sustainable growth of enterprises within the electrical industry.*

Key words: *marketing strategy, competitive intelligence, ensuring economic security of enterprises, forecast.*

1.Introduction

In the last four years, the global market for business intelligence and analytics services has grown from \$130 billion to \$200 billion. Large-scale corporate databases, mobile applications, web analytics data, and social media data have necessitated the introduction of new marketing tools for working with large volumes of (BIG) data. The use of competitive intelligence tools is relevant for performing tasks such as improving customer relationships, finding correlations across multiple data sources, and predicting product or service sales, which

are key aspects of marketing. In developed countries, organizations such as the Bundesnachrichtendienst in Germany, the SDECE in France, the Uppläsnings Centralen in Sweden, and the JETR in Japan are conducting extensive scientific research in areas such as combating industrial espionage, implementing competitive intelligence in enterprises, using modern marketing tools, and developing mechanisms to ensure the economic security of electrical engineering enterprises. Also, the study of the scientific, methodological and practical aspects of ensuring the economic security of enterprises of the electrical engineering industry based on modern marketing approaches is one of the relevant scientific directions today.

Comprehensive measures are being taken to increase the global competitiveness of the national economy of Uzbekistan, including enterprises of the electrical engineering industry. The Decree of the President of the Republic of Uzbekistan dated January 28, 2022 No. PF-60 "On the Development Strategy of New Uzbekistan for 2022-2026" [1], in particular, sets out the tasks of "accelerated development of the national economy and ensuring high growth rates". Based on this, it remains an important issue to conduct research on the comprehensive development of the internal potential of enterprises of the electrical engineering industry, radically renew their material and technical base, and effectively use existing resources in order to increase their economic stability.

2.Literature review.

The issues of ensuring the economic stability of the economy have been studied in the works of foreign scientists Nyanga, S.[3], Fahey, L.[4], Demin A.[5], Gribov V.D., Gruzinov V.P., Kuzmenko V.A.[6], Doronin A. I.[7], Stepchenko T.S., Dovbysh V.E.[8], Soldatova N.F. [9] and others, and others have separately studied the organizational aspects of ensuring the economic security of enterprises and competitive intelligence.

In Uzbekistan, the theoretical and methodological foundations of ensuring the economic and financial stability of enterprises have been widely covered in the works of our local scientists A. Burkhanov, S. Gulomov, P. Pardaev, T. Shodiev, N. Makhmudov, B. Berkinov, B. Khasanov and others.

In the scientific works of the above authors, insufficient attention was paid to the study of the economic security of electro-industrial enterprises using competitive intelligence tools. Therefore, a deeper study of ensuring the economic security of electrotechnical industry enterprises, which are considered as one of the promising sectors of the economy, is one of the urgent issues.

3.Analysis and results

The crisis forces the enterprise to operate in completely new operating conditions, and, of course, the company's marketing strategy must also change in accordance with the new conditions. There is a widespread misconception that it is impossible to know how the market will behave now, and therefore it is useless to plan anything. But this is not so, on the contrary, it is necessary to think through each step carefully, because in today's situation any mistake can have many times more painful consequences for the company's activities than before.

Modern marketing is the combination of strategy with marketing tactics. It has gradually grown from a purely tactical tool of market activity to strategic-tactical marketing, in which strategy becomes the direction of the entire marketing concept of the company. The basis of marketing strategy is formed by the needs of buyers and their perceptions. Modern marketing is no longer just marketing that manages the perception of consumers, but also forms the satisfaction of consumers from consuming a product or service.

"Marketing strategy" has changed somewhat in recent years. Previously, marketing strategy was a plan of marketing actions to achieve strategic objectives, but in modern realities, marketing strategy involves the allocation of resources and marketing costs to effectively solve business problems.

A marketing strategy is equally necessary for any company, regardless of its size: for small enterprises, small, medium-sized and large firms. In conditions of economic uncertainty, the need for a marketing strategy increases sharply, since the company's own resources are not enough, and for effective management it is necessary to rationally allocate and use all economic resources.[9]

A marketing strategy can be imagined as a whole block of marketing activity directions, it is they that form the direction of the strategy. A modern marketing strategy must ensure the implementation of the three "Ks": coordination, focus, and communication. Marketing strategy coordinates the resources allocated to marketing so that they are directed to solving strategic business tasks.

Marketers working in a company must have their own vision of how to solve the tasks facing them, clearly understand how they will perform their functions. It is the marketing strategy that coordinates different points of view and ensures the implementation of marketing tasks, while marketing activities coordinate various areas of the company's work.

In order for employees to understand the concept of marketing strategy and the responsibilities of each employee in its implementation, the marketing strategy must establish effective communication between employees and colleagues, between management and leadership.

The fierce competition in domestic markets and the position of companies depend on how successfully the marketing strategy is implemented. If employees coordinate their actions, concentrate their efforts in the right direction and present the results of their work to those around them, the result from the implementation of the strategy can be the highest.

The modern marketing strategy of a product consists of four components: target market; economic objectives; image of the product in the minds of buyers; programs. Targeting and product image are the basis of marketing strategy. Without working in these areas, marketing strategy cannot coordinate, concentrate, or convey important information to those around it. It is impossible to develop tactical marketing programs without a clear understanding of the marketing strategy, without selecting target market segments and creating product images in them. Tactical marketing cannot adequately replace strategic marketing, and the view that marketing tactics are sufficient in their own right can be a very dangerous mistake. Making tactical marketing decisions without a marketing strategy is tantamount to acting without considering their future consequences.

Based on the analysis of research on marketing strategy during the crisis, we have compiled several tips for optimizing marketing activity as a result of scientific research.

1. Act without waiting. The most effective marketing strategy is a set of measures to influence the changing market environment. However, during a crisis, it is important to use active strategies: it is important not to influence events, but to create these events themselves.

2. Take into account irrationality. A crisis always affects the psychology of the buyer. His behavior, preferences, and attitude to advertising change. Before an economic shock, buyers feel a psychological shock: panic around him, an increase in the exchange rate, a reduction in jobs. People's actions do not correspond to logic, they try to save unnecessarily and not buy anything. At such times, advertising should not reflect pre-crisis values, thoughts, and ideas.

3. The need to work on the product. Buyers first of all look at the price of the product. In a crisis, you need to segment your product line and make it stand out from your competitors.

4. Reconsider pricing. The price of the product reflects the relationship between supply and demand. In a crisis, customers are concerned about costs, so many companies are forced to change prices. Usually they choose one of two ways: to leave the previous price and increase quality, or to leave the previous quality and reduce the price. Price is a part of the marketing strategy, it is easier and faster to change it than others.

5. Conduct research. If you know your target audience very well, even if you have conducted several studies and conducted in-depth research to study it, you will have to do this

again. In a crisis, consumer priorities and desires change, you need to know this. Don't lose touch with customers, demand re-connection. If you can convince them that your products are safe, reliable, and long-lasting, buyers will buy them even at a higher than average price.[1]

Modern marketing practice shows that any marketing strategy can be adjusted by constantly choosing a more effective option. However, in order for the target market and the image of the company to always be clearly visible, and marketing efforts to be clearly directed, all changes in the marketing strategy should be systematic, not pointwise.[9]

According to the research of the CIS economist Ekaterina Rubtsova, during times of economic instability, marketing policy should be more flexible and adaptable than in other normal times. According to the author, marketing policy should allow company management to quickly respond to market changes. It is necessary not to draw up detailed ten-year plans, but to develop short-term plans in great detail and make timely adjustments to the company's strategy. For one company, this period may be a week, for another - a day. It depends on the scope of each company's activities and its current financial situation. [11] According to Ekaterina Rubtsova, the following functions of marketing strategy come to the fore: information analysis, advertising and sales promotion.

Theoretical studies show that during a crisis, it is necessary to cover the market situation, consumer behavior and sales with basic marketing analysis.

The main feature of household appliances is that one consumer does not buy them often, in most cases this is a one-time sale, which is different from clothing or food products. Of course, equipment also wears out, modernization is constantly underway, new apartments are purchased, consumer needs change, and they decide to update their equipment, but this is a rare occurrence. Therefore, the first priority is not to retain the customer, but to attract him. Accordingly, the company's image advertising is of the utmost importance. For example, to create or further emphasize the image of a serious company with a large product range, or to show that this crisis is not the first in its history and that it has never deceived its customers. This is especially important for companies that manufacture or sell products on a custom basis, in which case the requirements for the reliability of the company for the buyer increase.[12]

Of course, in a crisis, it would seem reasonable to completely cut the advertising budget, but as one English historian said, only a mint that issues money can make money without advertising. You should not give up advertising, otherwise you will quickly be forgotten. But you can significantly reduce your expenses. First, pay more attention to image advertising. Second, analyze the areas where you spend your advertising funds. To do this, you need to carefully study demand, consumer needs and behavior, as well as the actions of competitors.

Refuse untested advertising areas, that is, if you want to see how the audience of a certain area will react to your new offer, it is better to postpone such an event until better times. Now, target the category of buyers who are expected to bring the greatest profit. Some marketing consultants believe that instead of hiding and cutting back, you need to be proactive. It is during a crisis that you have the opportunity to capture the market. All that is needed is initiative and sound calculation. It is necessary to carefully approach the selection of marketing tools to promote the company's products and services.

Based on the factors studied in paragraph 2.2 of this dissertation, we develop a forecast for the development of the electrical engineering industry of the Republic of Uzbekistan until 2025.

We also check the reliability of the parameters in the multifactor econometric model (2.5) built on the data of the electrical engineering industry of the Republic of Uzbekistan. With a confidence interval and degrees of freedom $d.f. = 22 - 4 - 1 = 17$, the tabular value of the t-test is $t_{table} = 2.054$. It can be seen that the calculated values of the t-test for this enterprise are also significantly higher than the tabular value. In the multifactor econometric model (3.5), all influencing factors are left in the model and used in the forecast.

To check the autocorrelation in the residuals of the resulting factor in the multifactor econometric models (2.4) and (2.5), we use the Durbin-Watson (DW) criterion.

The calculated DW value is compared with the DWL and DWU in the table. If $DW_{calculated} < DWL$ is less than, then the residuals are said to have autocorrelation. If $DW_{count} > DWU$ is greater than, then there is no autocorrelation in the residuals.

According to the multifactor econometric model (2.4) constructed on the basis of data from the electrical engineering industry (Y_2) of the Republic of Uzbekistan, the lower bound value of the Durbin-Watson criterion is $DWL = 0.79$ and the upper bound value is $DWU = 1.68$. $DW_{count} = 2.026$. Thus, since $DW_{count} > DWU$, there is no autocorrelation in the residuals of the resulting factor (textile product volume ($\ln y$)).

The absence of autocorrelation in the residuals of the resulting factor (Y_1, Y_2, Y_3) for the research object also indicates that the above multifactor econometric models (2.4) and (2.5) can be used in forecasting.

The actual (Actual), fitted (Fitted) values and the differences between them (Residual) of the multifactor econometric models (2.4) and (2.5) are presented in Figures 1 and 2 below.

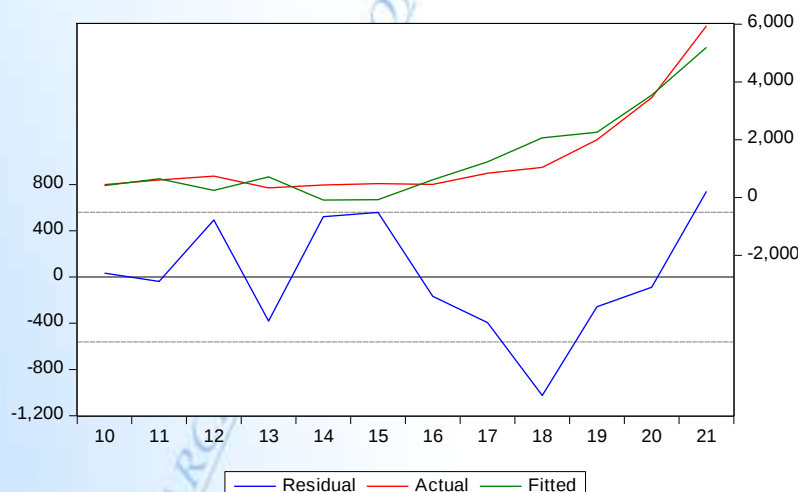


Figure 1. Graph of actual (Actual), calculated (Fitted) values of the volume of output of the electrical engineering industry operating in the Republic of Uzbekistan, and the differences between them (Residual)

It can be seen from Figure 1 that the graph of values calculated by the multifactor econometric models (2.4) and (2.5) is very close to the graph of its true values, and the differences between them are not very large. This is another proof that the multifactor econometric models (2.4) and (2.5) can be used for forecasting for future periods.

The MARE (Mean absolute percent error) coefficient is calculated for forecasting the resulting indicator for future periods from the calculated multifactor econometric models (2.4) and (2.5) and is found using the following formula:

$$MAPE = \frac{1}{n} \sum_{i=1}^n \frac{|y_i - \hat{y}_i|}{y_i} \cdot 100\%,$$

where y_i the actual values of the resulting factor, $\hat{y}_i$ - the calculated values of the resulting factor.

If the calculated MARE coefficient value is less than 15.0 percent, the model can be used to predict the resulting factor, otherwise it cannot be used.

The calculated multifactor econometric models were checked using a number of criteria and it was found that they can be used to forecast factors in future periods, and we will carry out forecast calculations for future periods.

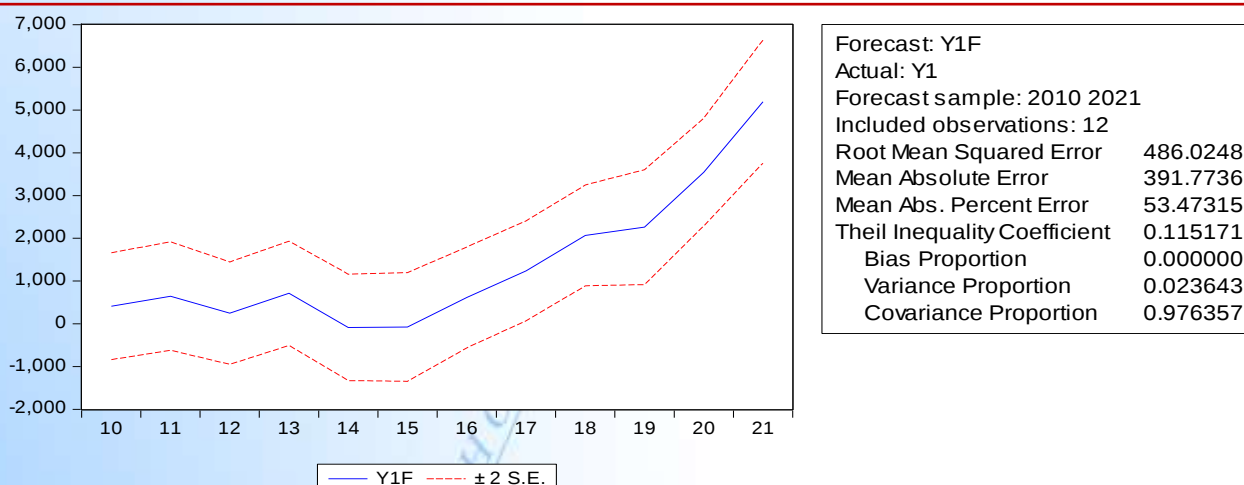


Figure 2. Forecasting indicators using the calculated model for the operating electrical engineering industry in the Republic of Uzbekistan

It shows that there are two options for solving the problem of ensuring the economic security of enterprises of the electrical engineering industry of Uzbekistan.

1. The inertial scenario provides for the preservation of the existing dynamics of development without any significant changes in the existing trends in the development of the country's electrical engineering industry complex. This will lead to a further increase in the share of imports in the domestic market and a subsequent partial reduction in the exports of this sector.

2. The targeted modernization scenario involves the modernization of the material and technical base of enterprises, the development of competitive intelligence activities at enterprises, and the development of a strategy to counter threats in the external and internal environment.

The main purpose of forecasting the volume of production of the electrical engineering industry is to calculate the economic efficiency achieved through the use of net income from sales of products, asset profitability, increase in property value, and maximum utilization of production capacity in the chemical industry. Based on the changes in the utilization of production capacity in the electrical engineering industry in the Republic of Uzbekistan in 2001-2020 and the volume of products manufactured on these fixed assets, prospective changes can be forecasted in several scenarios.

It is advisable to take the production volume in the forecast relative to the highest level achieved during the years under review. From this point of view, results were obtained based

on regression functions for forecasting the level of utilization of production capacity in the case of an inertial scenario and a minimum critical point of development.

Table 1

Forecast indicators of the production of electrical equipment and computers, electronic and optical products in the Republic of Uzbekistan until 2030 (billion soums)

Years	Forecast indicators of electrical equipment production in the Republic of Uzbekistan until 2030		Forecast indicators of the production of computers, electronic and optical products in the Republic of Uzbekistan until 2030	
	Inertia scenario	Targeted modernization Scenario	Inertia scenario	Targeted modernization scenario
2025	12582,3	17997,5	4706,8	10200,4
2026	13513,3	19784,0	5055,1	11242,9
2027	14444,3	21766,8	5403,4	12391,6
2028	15375,3	23749,7	5751,7	13540,3
2029	16306,3	25732,6	6100	14689,1
2030	17237,3	27715,5	6448,3	15837,8

The significance of the forecast indicators according to the obtained model (1) is $R^2 = 0.88$ at $p \leq 0.05$, which indicates that the forecast values obtained by the model are justified.

Based on the obtained regression models, it was determined that the inertial scenario will produce 17237.3 billion soums in 2030, and the target modernization scenario will produce 27715.5 billion soums in 2030 (Table 2).

It was also determined that the inertial scenario will produce 6448.3 billion soums in 2030, and the target modernization scenario will produce 15837.8 billion soums in 2025.

4. Conclusions

The development of the electrical engineering industry in the republic is determined by the optimistic scenario resulting from the planned modernization policy until 2030, and is carried out through the following advantages:

Development of public-private partnerships in the field of research and development by financing part of the costs of research and development by the real sector of the economy;

- provision of state guarantees for loans attracted by machine-building companies for the purpose of obtaining licenses or developing research and development;

- acceleration of marketing activities at enterprises, development of competitive intelligence.

As a result of the implementation of the modernization scenario, the following positive results will be achieved:

- reduction of the terms of creation and creation of new products due to increased coordination of ongoing research and development;

- increase in co-financing from extra-budgetary sources;

- increase in the likelihood of successful implementation of investment projects, the rationality of choosing priority areas of research and development.

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