APPLIED ECONOMETRIC ASPECTS OF MODELING THE SOCIO-ECONOMIC DEVELOPMENT OF A LARGE PRODUCTION CORPORATION

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Abstract. *The article considers the problem of using econometric modeling in strategic planning of enterprises. Using the example of the enterprise «Roshen-Lviv», the dynamics of net income for 2019-2024 was analyzed. A stable growth trend was revealed with seasonal fluctuations, with the highest values in the fourth quarter. Using the time series decomposition method, an econometric model was built and a forecast of the net income of the enterprise «Roshen-Lviv» for 2025 was made. Based on the obtained results, the financial prospects for the further activities of the enterprise «Roshen-Lviv» were outlined.*

Keywords: *forecasting, time series decomposition, additive model, trend, time series, seasonal fluctuations, cyclical component, multiplicative model, random component, moving average.*

The purpose of the article is to study the patterns of changes in the income of Roshen-Lviv LLC, to build an econometric model of the dynamics of net income, and to forecast the socio-economic development of the company for strategic planning of its further activities. The implementation of this goal is carried out using analysis and synthesis methods, the moving average method, and the time series decomposition method.

The article considers the problem of using econometric modeling in strategic planning of enterprises. The time series decomposition method is an effective approach to forecasting, in particular, financial indicators. Therefore, this method was applied to assess the future dynamics of net income from sales of Roshen-Lviv LLC products. The use of an econometric model of dynamics allowed not only to identify the main patterns of income

changes, but also to take into account the influence of seasonal and random factors, which provides a more accurate forecast. It was found that the dynamics of net income of Roshen-Lviv LLC for 2019-2024 is characterized by a clearly expressed growth trend (Fig. 1), as well as the presence of seasonal fluctuations. Therefore, the decomposition of net income dynamics was performed using an additive model.

The study showed that the company receives the highest income in the fourth quarter of the year, which is associated with an increase in demand for confectionery products in the pre-holiday and holiday periods. The lowest income is observed in the third quarter, which means a decrease in the consumption of confectionery products in the summer period. Based on the decomposition analysis, the forecast values of the net income of Roshen-Lviv LLC for 2025 were calculated by combining all components of the time series: trend, seasonal and cyclical (Fig. 6). The obtained results can be used for strategic planning of the enterprise. The forecast values demonstrate positive dynamics of the company's net income, taking into account seasonal fluctuations, maintaining the general trend of growth. At the same time, the seasonality characteristic of the Roshen-Lviv enterprise remains, when the highest income is observed in the IV quarter, and the lowest in the I quarter of the year. The total projected net income of the enterprise in 2025 is 737408,20 thousand UAH, which is 15,2 % more than in 2024. The increase in net income in 2025 demonstrates a stable growth in the scale of the enterprise's activities and the potential for further development. The obtained results can be used for strategic planning of the enterprise's activities, in particular, optimizing raw material purchases and increasing the efficiency of production processes.

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