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FORECASTING ECONOMIC INDICATORS OF POSTAL AND LOGISTICS OPERATORS IN THE CONDITIONS OF DIGITAL TRANSFORMATION

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Abstract. *The article examines the dynamics of net income of the leading postal and logistics operators of Ukraine – JSC «Ukrposhta», LLC «Nova Poshta» and LLC «Mist Poshta». Based on statistical data for 2018–2024, the main trends in changes in indicators were analyzed and econometric models were built for each company separately. The Brown's method was used for forecasting, which is appropriate under conditions of limited time series length. It was found that the net income of all three enterprises maintains a stable growth trend in 2025–2026. The obtained forecasts can be used to justify management decisions and plan further activities of postal and logistics operators in the context of digital transformation.*

Key words: *short-term forecasting, modeling, Brown's method, econometrics, net income, postal and logistics operator, digital transformation, time series, trend.*

The purpose of the article is to investigate the patterns of changes in the income of JSC «Ukrposhta», LLC «Nova Poshta» and LLC «Mist Poshta» and build an econometric model of the dynamics of net income for each company; to forecast the socio-economic development of operators, which will allow for reasonable planning of their further activities. To achieve this goal, the Brown forecasting method and traditional methods of analysis and synthesis are used, which allow us to assess trends and forecast indicators for each company separately.

Net income from product sales is a key economic indicator of the activities of postal and logistics operators, as it reflects the scale of the company's operations, the dynamics of demand for its services, and real changes in competitive positions in the market. The article examines the dynamics of net income of the leading postal and logistics operators of Ukraine – JSC «Ukrposhta», LLC «Nova Poshta» and LLC «Mist Poshta». Based on statistical data

for 2018–2024 (Table 1), the main trends in changes in indicators were analyzed and econometric models were built for each company: for LLC «Nova Poshta» ($y = 5,5574x + 1,5776$ with the coefficient of determination $R^2 = 0,9195$), JSC «Ukrposhta» ($y = 0,9752x + 6,0728$; $R^2 = 0,9258$) and LLC «Mist Poshta» ($y = 0,0657x + 0,2276$; $R^2 = 0,5461$).

The time series used in our study for 2018–2024 is relatively short, so the application of complex models may be limited. For this reason, the Brown method, a variant of double exponential smoothing, was chosen for short-term revenue forecasting of postal and logistics operators. The method allows to take into account the trends of changes in indicators and provides acceptable stability of forecasts even under conditions of limited data volume. In order to estimate the accuracy of each of the models, the absolute percentage error (APE) and the mean absolute percentage error (MAPE) were calculated. The obtained MAPE values are acceptable for economic indicators and indicate high accuracy of the models.

It was found that the net income of all three leading postal and logistics operators of Ukraine maintains a stable growth trend in 2025–2026. At the same time, the most favorable dynamics are expected for LLC «Nova Poshta» – an increase in net income to about UAH 70 billion in 2026, which is almost seven times higher than its level in 2018. Less intensive growth is predicted for LLC «Mist Poshta» (in 2026, net income will exceed the level of 2018 by four times) and JSC «Ukrposhta» (approximately twice). The obtained forecasts can be used to justify management decisions and plan further activities of postal and logistics operators in the context of digital transformation.

Reference

1. Ostertagova E., Ostertag O. Forecasting using simple exponential smoothing method. *Acta Electrotechnica et Informatica*. Vol. 12. No. 3. P. 62–66. URL : https://www.researchgate.net/publication/256086712_Forecasting_using_simple_exponential_smoothing_method
2. Hansun S. A New Approach of Brown's Double Exponential Smoothing Method in Time Series Analysis. *Balkan Journal of Electrical and Computer Engineering*. 2016. Vol. 4. No. 2. P. 75–78. URL : https://www.researchgate.net/publication/309165009_A_New_Approach_of_Brown's_Double_Exponential_Smoothing_Method_in_Time_Series_Analysis
3. Aimran A. N., Afthanorhan A. A comparison between single exponential smoothing (SES), double exponential smoothing (DES), holt's (brown) and adaptive response rate exponential smoothing (ARRES) techniques in forecasting Malaysia population. *Global Journal of Mathematical Analysis*. 2014. Vol. 2, No. 4. P. 276–280. URL : <https://www.sciencepubco.com/index.php/GJMA/article/view/3253>
4. Santosa R. G., Chrisanto A. R., Raharjo W. S. Comparison of the Accuracy of Brown's and Holt's Double Exponential Smoothing in LQ45 Stock Price Forecasting. *International Journal of Information Technology and Computer Science Applications*. 2024. Vol. 2, No. 1. P. 1–11. URL : <https://ejournal.jejaringppm.org/index.php/jitcsa/article/view/112/64>
5. Mutiara M., Fuadi W., Maryana M. The Use of Brown's Double Exponential Smoothing Method to Predict Harvest Yields in Horticultural Crops. *Journal of Advanced Computer Knowledge and Algorithms*. 2024. Vol. 1. No. 4. P. 89–95. URL : <https://ojs.unimal.ac.id/index.php/jacka/article/view/17806>
6. Riyansyah A., Pasaribu A.N.S. Forecasting Rice Production for Strategic Decision Making in Agribusiness Management: Application of Brown's Double Exponential Smoothing in Batubara District. *Journal Of Management Analytical and Solution*. 2025. Vol. 5. No. 3.

P. 131–143. URL : <https://talenta.usu.ac.id/jomas/article/view/22948/9419>

7. Brown R. G. Statistical Forecasting for Inventory Control. 1959. New York : McGraw-Hill. 232 p.

8. Nova poshta investoram. URL : <https://novaposhta.ua/more/for-investors/> [in Ukrainian]

9. Ukrposhta. Richni zvity. URL : <https://www.ukrposhta.ua/ua/richni-zvity> [in Ukrainian]

10. Meest Finansova zvitnist. URL : <https://ua.meest.com/finansova-zvitnist> [in Ukrainian]

11. Opendatabot TOV «MIST POSHTA». URL : https://opendatabot.ua/c/361_52228 [in Ukrainian]

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