

Interval forecast of financial indicators of a company value based on a regression on principal components

Yakupova N., Kadochnikova E., Zulfakarova L., Zapparova Z.
Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

© 2018 Institute of Physics Publishing. All rights reserved. The article emphasizes the need to forecast financial indicators in order to assess the value of a company in the interests of its owners and investors. This proves the need for using econometric models to measure quantitative economic interrelations of net profit as the main indicator of cash flow and internal factors of growth. The result of the study is an interval forecast estimate of the net profit of the trading company. The authors propose the construction of the forecast of net profit based on regression on the main components in the conditions of collinearity of regressors - indicators of the financial state of the company. Empirical results are obtained in Gretl's software environment in order to reveal the interrelationships of net profit and growth factors on the basis of specific economic data. The study confirmed the existence of a causal relationship between the net profit of the trading company and the turnover of inventory. In future research it is possible to apply the methodological approach presented in the article to obtain prognostic estimates of profit based on regression with non-financial indicators of the company and environmental factors, taking into account qualitative factors and territorial features of business.

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Keywords

confidence interval of a forecast, forecast, main components, multicollinearity, multiple regression, profit

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