

SELECTION OF RISK FACTORS OF BANKRUPTCY OF AN ENTERPRISE BASED ON THE METHOD OF MAIN COMPONENTS

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Abstract

The article presents the rationale of the choice of main component solutions for the actual problem of selecting the most significant risk factors of bankruptcy.

To evaluate financial and economic activities of an enterprise they use a metric which includes some main sections: assessment of a status; assessment of liquidity; assessment of business solvency; assessment of business activity; assessment of profitability. Every group has from 6 to 12 different coefficients (in total 41). The use of all these sections in the system of bankruptcy risk management hampers processes of modeling and forecasting activity. Therefore cut of variable numbers is necessary for analysis using the method of main components.

The method of main components is meant for structuring of data by means of reduction of many test variables to fewer number of variables (components or factors), which would explain the majority of variation in values of researched data. Testing of this method was made on data of accounting statements from 33 engineering works. As a result of applying the method of the 33 indicators of financial and economic activity of the enterprise was selected 10 the most significant. The use of the method of main components allow: 1) revealing the most important operating rate of an enterprise; 2) forecasting revenue of an enterprise; 3) if it is necessary correcting results to provide planned results.

The use of the method of main components allow revealing the most important factors of external and internal environment of an enterprise negative influence of which can lead to bankruptcy or on the contrary positive influence of which can reduce a risk level.

Number of indicators is reduced to avoid duplication of information, thus reducing the complexity of decision-making in the analysis of financial condition and business operations of the enterprise.

Keywords: method of main components, reducing the dimension, risk, bankruptcy, management.

JEL: C81, G17, G33.

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