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RESULTS OF ANALYSIS OF MACHINE LEARNING PRACTICE FOR TRAINING EFFECTIVE MODEL OF BANKRUPTCY FORECASTING IN EMERGING MARKETS

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All still existing classical techniques methods of assessing the financial stability of an enterprise have their own disadvantages and advantages. Therefore, today an important question arises about the development of such a complex multistage methodology of financial analysis and forecasting (hereinafter FAP), which would give a clear idea of the existing financial condition of the enterprise, require a minimum of hard-to-find internal information, comprehensively cover the activities of the enterprise and could be the basis for making recommendations to further improve its financial stability [1].

A generalized analysis of the practice of FAP companies in emerging markets made it possible to identify the following systemic methodological problems [2]:

- in practice, the analysis comes down to calculating the relative changes in the structural elements of financial statements, changes in individual financial ratios, moreover, the time horizon of the study is limited, as a rule, to one or two periods, that is, short-term or tactical trends are ascertained;

- the results of assessing the stability of organizations' functioning are based in a number of cases on insufficiently complete and reliable information (for example, due to the optimization of the tax burden, there is a tendency towards different methods of calculating the tax base, in addition, differences in accounting policies and / or differences in corporate standards for consolidating financial statements and etc.)

- most of the existing methods do not provide a clear distinction between the analysis of solvency and liquidity, moreover, almost all attention is only directed to assessing solvency, financial stability and liquidity;

- in existing models, the standards of indicators and / or weight coefficients are calculated on too outdated samples, moreover, they do not take into account either national, or industry, or crisis specifics;

- the detailed analysis of the activities of organizations led to the development, calculation and use of an obviously unnecessary number of indicators, especially since some of them are in direct functional relationship with each other (for example, the autonomy ratio and the ratio of debt to equity);

- a comparative analysis of the activities of companies is complicated by the lack of an industry reference and regulatory framework for types of economic activities and available reliable averages (in many developing countries, rating agencies produce and regularly publish similar standards);

- the reporting of the analyzed organizations is distorted for inflationary processes in the economy, which mainly affect not the results of the vertical (the main proportions often remain unchanged), but of the horizontal analysis.

Summing up the results of the system analysis of the existing methods of forecasting the financial condition of companies, and taking into account the author's practical industry experience, we can confidently assert that no existing FAP methodology without adaptation and scenario method of use can give an adequate forecast of the financial condition of companies in emerging markets, especially in current crisis conditions.

Thus, a reliable forecast of the financial stability (risk of bankruptcy) of a company through the construction of adequate economic-mathematical-statistical models is possible if the following, rather complicated, for now, for the practical fulfillment of the conditions are fulfilled [3]:

1. the basis for modeling should be the results of observations for the longest period of time of business activity (taking into account possible "changes in signs" - actual re-registration of legal entities, with the actual continuation of the same business), taking into account the sample for different phases of the crisis and taking into account possible changes of the standards for maintaining official and internal reporting of the company;

2. the data used to train the models should reliably reflect the state of the organization, that is, contain not only data from the official reporting forms, but also involve all possible internal reporting, taking into account possible optimization holding schemes;

3. when building effective models for predicting the risk of bankruptcy of a company, it is necessary to take into account not only indicators of solvency and financial stability, but also indicators of business activity and performance indicators of the company's operating profile, credit (leasing) history of the company, marketing indicators (for example, the quality and content of the "portfolio of strategic clients" of a company)

4. taking into account the characteristics and consequences of the impact of macroeconomic political crises on the industries of developing countries, in addition (despite the results of factorial, correlation and variance analyzes, limiting the number of attributes of the future model), in the forecasting model, it is necessary to provide for the presence of macro indicators in the field of economics and foreign policy (which will often be categorical and evaluated in an expert way - the discount rate of

the national bank, unofficial restrictions on transit from neighboring states, the exchange rate of the national currency, etc.)

5. the classified sample for training the model should be verified, according to the possibility of scheme bankruptcies, or bankruptcies through re-registration of companies [4];

6. to achieve a higher accuracy of the results of such models, it is necessary to systematically (at least once a financial year) and critically revise the set of indicators and retrain the “coefficients” of their weighting influence with targeting the strategic goals of shareholders.

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