TEMPLATE METHOD OF FORECASTING THE FINANCIAL CONDITION

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In theses treated a new method of forecasting the financial condition of the company. The algorithm is interesting because in practice shows the high accuracy of the forecast. This is achieved by eliminating the factors of reduced quality prediction, which characteristic of the traditional forecasting methods.

Keywords: forecast financial position, financial ratios, the accuracy of the forecast, the forecast of bankruptcy, a new forecasting method, retrospective dynamics of indicators of crisis, template method

The contradictory and inaccurate forecasting results obtained by traditional methods, is currently one of the most pressing problems in forecasting the financial condition of the company.

Classical methods of forecasting is based on a study of the financial indicators for individual periods. One of the first who started to use financial indicators in methods of forecasting have been Beaver (Beaver 1966). He found that for the prediction can be used a variety of indicators.

In 1968, Altman continued development of this area, using multiple discriminant analysis in the construction of predictive models.

1980. Olson proposed the use of logistic analysis to estimate the probability of bankruptcy.

In 1996, Joy Begley found that the relevance of the model depends on the age of its elaboration. Thus, 30 years after the appearance of the first mathematical models to predict, was discovered factor reduces the accuracy of the forecast.

The imperfection of the models was also visible at the time of modeling, but the developers have proceeded from the real conditions. At a time when no one imagined that such a personal computer, a task was to develop a universal method for predicting bankruptcy with a minimum of mathematical tools. It was necessary to enable any user, armed with a pencil and exercise book would be able to calculate the prediction of bankruptcy. It should be noted that scientists have perfectly coped the task, offering users a rich arsenal of the most optimal predictive models.

However, now, when every accountant has at its disposal powerful personal computers, it can be stated that the prerequisites are ripe for the emergence of new methods of prediction based on the study of large amounts of data and related to time-consuming calculations. Obviously, the handling of large information processes for personal computers is not a problem.

In addition to the factor-old development model that reduces the accuracy of the forecasts noticed by Joy Begley (Joy Begley), you can also note the following factors:

• Ignoring of retrospective dynamics of financial indicators;

• Building models based on accounting data of different types of enterprises, resulting in occurs ignoring type of enterprise, the specificity of activity, feature of the economic situation and other factors.

Eliminate these shortcomings will help the elaboration of a new method of forecasting. It is the emergence of new information technology tools allow to start implementing this method, since the number of computational operations in the implementation of such methods should be increased by orders of magnitude.

Thus, the new approach in predicting the financial condition represents detailed study of sets of values of financial performance for the period. Naturally, the whole procedure must be carried out automatically by means of special software.

The crisis is accompanied by certain prerequisites. As in the period of crisis and in the pre-crisis period, the state of the company, its financial condition is characterized by a particular set of values of financial performance or a set of random values. A must for every company to identify their individual "pre-crisis" templates. The user determines the "crisis" periods and periods prior to "crisis" will be marked as "pre-crisis". Accordingly, a set of indicators in the pre-crisis period is marked as "pre-crisis".

The function of early recognition of the crisis based on a comparison of the template of financial indicators for the current reporting period with templates of previous periods.

The implementation of this prediction algorithm is based: **on the search for in archive database set of values of financial ratios corresponding to the pre-crisis period, and at the same time not less than 75% similar with a set for the current reporting period**. In the event detection of such a set of indicators, there are grounds for the issuance of an warning of information system about the possible development of a crisis situation.

To confirm the significance of the proposed algorithm was necessary to compare the forecast results of the template method with the accuracy of forecasts, which show the classical methods of prediction of bankruptcy, such as for example the method of Liss (Liss), 2-factor model of Altman (Altman), model Springeyta (Springate), Tafflera & Tishou (Taffler & Tishow) and Fulmer

Table 1

Accuracy of Forecasts by different methods

| Method	Liss	2-factors Altman	Springate	Taffler & Tishow	Fulmer	Arithmetic average of the accuracy of forecasts	Template method Accuracy comparison
Probability of bankruptcy	**41%**	**25%**	**34%**	**2%**	**61%**	**32,6%**	**16%**
Forecast accuracy	**59%**	**75%**	**66%**	**98%**	**39%**	**67,4%**	**75,2%**
Safin-Grup	0%	1%	0%	0%	45%	90,8%	91,23%
GekaTex	65%	50%	40%	0%	80%	53,0%	80,85%
DigiAger	80%	35%	80%	0%	45%	52,0%	76,92%
CarComVit	20%	10%	25%	0%	70%	75,0%	63,64%
Bilgi-Com	10%	16%	21%	11%	64%	75,6%	62,50%
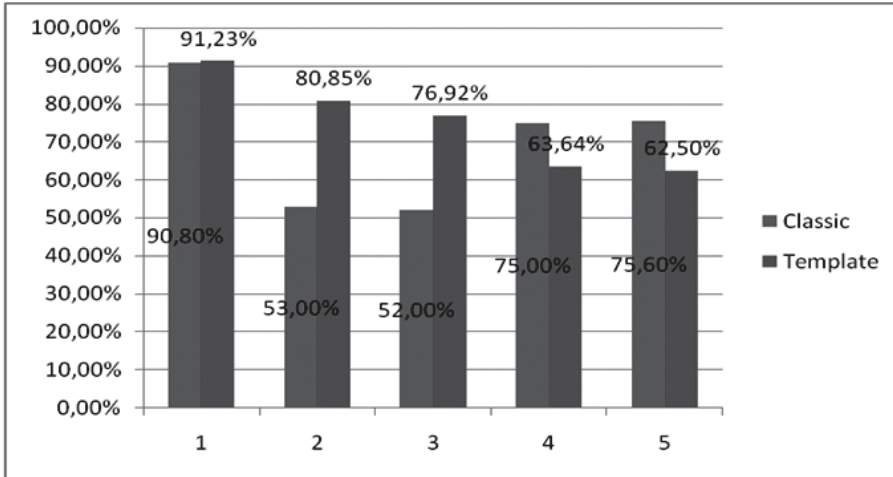
Fig. 1. Lift Chart classic and formulaic methods.
Where, 1-Safin-Grup, 2-GekaTex, 3-DigiAger, 4-CarComVit, 5-Bilgi-Com

In enterprises CarComVit and Bilgi-Com formulaic method of prediction accuracy was lower by about 8%. However, judging from the average data, the template method, in general, showed a prediction accuracy of 75.2% compared to 67.4% of the classical methods. **Thus, it can be argued that the template method by an average of 7.8% showed higher forecast accuracy than classical methods of prediction.**

These study confirms the significance of the assumptions about the importance of prediction the financial condition by recognition of sets of values of financial indicators, specific to the pre-crisis situations.

(Fulmer). All of these methods, also a template method of prediction was tested on a sample of five companies of the Republic of Moldova (Safin-Grup, GekaTex, DigiAger, CarComVit, Bilgi-Com). As a result, results were obtained which are shown in Table 1.

Table 1 shows that the high interest rates of forecast accuracy made by formulaic method were shown in enterprises Safin-Grup - 91,23%, GekaTex-80, 85%. A good result in the company DigiAger - 76,92% and about 63% at the companies CarComVit and Bilgi-Com (Fig. 1).

It should be noted that the enterprise Safin-Grup good percentage of forecast accuracy has been featured as the classical methods (90.8%) so and formulaic method (91.23%). As for GekaTex and DigiAger it can be stated that these enterprises template method showed much more accurate results. The company GekaTex classical methods - 53%, template method - 80.85%, a positive difference in favor of a formulaic prediction method is 27.85%. The enterprise DigiAger this difference is 24.92% (76.92% -52% = 24.92%).

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