

Accounting, analysis and audit

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IMPROVEMENT OF METHODOLOGICAL SUPPORT OF AUDIT OF CREDITORS 'AND RECEIVABLES OF THE ENTERPRISE

An important component of the methodological support for the audit of accounts payable and receivable of the enterprise is the use of methods and appropriate techniques in the course of audit procedures. An important method of audit is the analysis, the content of which is discussed in the previous section. The paper substantiates the expediency of developing an approach to improving the methodological support for the audit of accounts payable and receivable of the enterprise, which is based on the application of the analysis of accounts payable and receivables of the enterprise. The analysis of receivables is especially necessary in periods of inflation, when such immobilization of working capital becomes very unprofitable. To assess the turnover of receivables, the indicators presented in Table 1 are used.

Table 1

Indicators for assessing the turnover of receivables

Indicator	Formula	Characteristic
receivables turnover ratio — RTR	$RTR = R : AR$ Where R- receipts; AR- the average	This indicator makes it possible to determine how many times during the year (or other period being analyzed) the amount of sales revenue may

	amount of receivables on the balance sheet, thousand UAH	include the average balance of debt rights (debtors). This indicator determines the effectiveness of credit control. Credit - by the company, because, giving the goods with deferred payment to other entities, the company actually lends them
Days 'Sales in Receivables, Accounts Receivable Turnover in Days (T_{AR})	$T_{AR} = T : RTR$ where T_{AR} – duration of repayment of receivables, days; T – reporting period.	The longer the repayment period, the higher the risk of non-repayment of receivables
The percentage of receivables (PR)	$PR = DD : AR \times 100$ Where DD – doubtful debt, thousand UAH	The upward trend in this indicator indicates a decrease in liquidity. In order to manage receivables, it is necessary to constantly monitor the status of settlements with customers, to have a wide range of consumers to reduce the risk of non-payment by one or more large customers, to monitor the ratio of receivables and payables

In order to manage receivables, it is necessary to constantly monitor the status of settlements with customers, to have a wide range of consumers to reduce the risk of non-payment by one or more large customers, to monitor the ratio of receivables and payables. All the above indicators characterize the business activity of the enterprise. However, this characteristic will be incomplete, it is necessary to analyze accounts payable.

The turnover of accounts payable and the average repayment period are determined similarly to the above indicators for debtors. Instead of the amount of sales revenue is taken the amount of purchases, because sales cannot be compared with debt for deliveries. Accounts receivable are related to sales for this period; accounts payable - with the volume of purchases.

Ensuring the effective functioning of enterprises requires economically sound management of their activities, which is largely determined by the ability to analyze it. Analysis and assessment of receivables and payables in the enterprise management system involves external and internal analysis, identification of opportunities, risks and threats, accounting for resources and time constraints to achieve goals, determining the average size of financial

assets in the form of receivables, their share in the total turnover of assets of the enterprise, the division and valuation of receivables and payables by its individual types and maturities. The level of solvency and loss of financial stability of the organization depends on the rate of turnover of debt, which characterizes the efficiency of the enterprise. All this involves the implementation of economic analysis in a computer environment, which is carried out using specialized statistical and analytical packages, as well as software products.

The paper proposes to use the method of taxonomic analysis, the essence of which is to study objects that are characterized by a large number of features. The construction of a taxonomic indicator of the level of development of receivables and payables is done in stages.

To determine the level of organization of receivables and payables in the analyzed period, a taxonomic indicator (taxonomic indicator of development) was calculated.

The standardization of performance indicators was made according to the formula:

$$x_{st} = \frac{x - \bar{x}}{\sigma} \quad (1)$$

where x_{st} – standardized value of the indicator;

x – indicator value;

\bar{x} – the average value of the factor;

σ – standard deviation by factor.

Standardized indicators of the level of organization (turnover) of receivables and payables of the enterprise.

The indicators of stimulants and destimulants are also highlighted and the values of the coordinates of the reference vector are calculated according to the coefficients of receivables and payables. It should be noted that the coordinates of the reference vector represent the minimum value among the standardized indicators. The basis for the distribution of indicators on stimulants and

disincentives is the characteristic effect of each indicator on the level of the final indicator, so in this case - the efficiency of the enterprise, with signs that positively affect the turnover of debt called stimulants, and signs that reduce this level - disincentives. To determine the level of organization of receivables and payables in the analyzed period, the distances from the values of the indicators of the corresponding year to the values of the corresponding indicators of the reference vector were calculated. The specified distance is calculated by the formula of the usual Euclidean distance:

$$\sqrt{(x_1 - x_{1e})^2 + (x_2 - x_{2e})^2 + \dots + (x_n - x_{ne})^2} \quad (2)$$

At the next stage, the distances from the value of the i -th indicator to the value of the corresponding indicator of the reference vector of the j -th year were determined:

$$R_j = \sqrt{(1 - x_{1j})^2 + (1 - x_{2j})^2 + \dots + (1 - x_{nj})^2} \quad (3)$$

where, R_j – the distance from the value of the i -th indicator to the value of the corresponding indicator of the reference vector of the j -th year;

$x_{1e}, x_{2e}, \dots, x_{ne}$ – indicators of turnover of the reference vector of the j -th analyzed year.

The taxonomic indicator of the level of organization of receivables and payables was calculated by the formula:

$$K_i = 1 - \frac{d_{ij}}{d}, \quad (4)$$

where, $d = d_{av} + 2 \sigma_0$ – the sum of the arithmetic mean value of Euclidean distances and the standard deviation of the value of Euclidean distances between the object and the standard;

$d_{av} = \bar{x} = \frac{\sum_{k=1}^m d_{ij}}{n}$ – the arithmetic mean value of Euclidean distances;

$\sigma_0 = \sqrt{\frac{\sum_{i=1}^n (d_{ij} - \bar{x})^2}{n}}$ – the standard deviation of the Euclidean distances

between the object and the standard.

The value of the taxonomic indicator of the level of organization of receivables and payables is given in table 2.

Table 2.

The value of the taxonomic indicator of the level of organization of receivables and payables

№	Years	Euclidean distance	Taxonomic indicator of development
1	2011	3,1790111	0,235203857
2	2012	3,0630989	0,263089643
3	2013	3,3747227	0,188120197
4	2014	3,6172052	0,129784555
5	2015	3,9593321	0,047476792

As can be seen from Table 2, the level of organization of receivables and payables in the analyzed period had variable trends, this is graphically represented in Fig. 1.

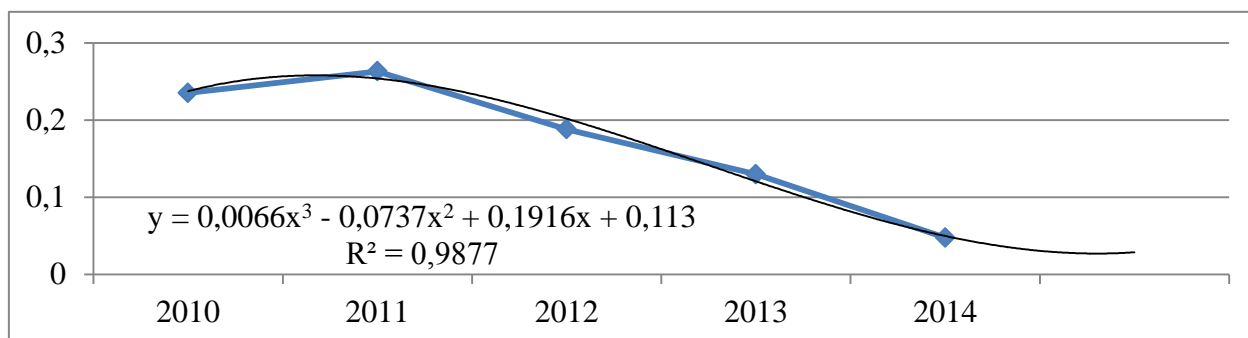


Fig. 1. Dynamics of the taxonomic indicator of the level of organization of receivables and payables

As can be seen from Fig. 1., the level of organization of receivables and payables in the period from 2011 to 2015. From 2011 to 2012 there is an increase in the efficiency of the enterprise, which can be explained by the positive impact of business activity ratios (debt turnover). Thus, the application of the analysis of accounts payable and receivable of the enterprise allows you to quickly identify strengths and weaknesses in the practical activities of the enterprise. Therefore, the proposed approach to improve the methodological support for the audit of accounts payable and receivable of the enterprise using

the methods of analysis allows the company to respond appropriately, in particular to manage accounts payable and receivable in the future.

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