

Some Aspects of Using Ratio Analysis Method in Analytical Procedures

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Abstract:

This article highlights some aspects of using the ratio method in IAS 520 «Analytical procedures» in the audit process of enterprises. In particular, the evaluation of the influence of the factors of the first and second order, which can be used in the analytical procedures and processes of the auditor's judgment, is substantiated. Especially, on the example of an enterprise, the practical aspects of using the ratio method, which is one of the methods of analytical procedures are studied.

Keywords: audit, international auditing standards (IAS), planning of audit, ratio method, balance, financial and non-financial information, analytical procedures, substantive test.

INTRODUCTION

The results of the reforms implemented in the field of audit and related services in the Republic of Uzbekistan in the last 4 years are becoming prominent. In particular, the decree No. 3946 of September 19, 2018 «On measures for the further development of audit activity in the Republic of Uzbekistan» states that «the level of trust in audit organizations is low, and the audit is not a guarantee of confirming the veracity of financial statements, but rather an administrative procedure that is redundant and burdensome» [1] has been recognized as a special problem that has arisen in the field for years. The fact that the sector has reached such a level is considered one of the main problems without a meso analysis of institutional and systemic deficiencies. So far, a number of legal bases have been created for the systematic elimination of the 5 main problems mentioned in the decree. Consequently, the adoption of the Law on Audit Activities (No. 677, February 25, 2021)

and the granting of a number of exemptions to audit companies in organizational matters became a unique turning point.

The practice of auditing is a dynamically developing field which determines the reliability of financial information and compliance with accounting legislation. Reliability means the level of accuracy of financial statements, which allows to make unbiased conclusions about the results of financial and economic activities. This makes the issue of high-quality fulfillment of the requirements of ISA during the audit process and the submission of audit reports in a form that is useful in any case for the benefit of users, that is, making rational economic decisions using the audit outcomes is a central issue.

LITERATURE REVIEW

It should be noted that in countries with a developed market economy, there are special firms that study the solvency of corporations, firms, etc., and sell information. For example, according to Lishansky M.L: «Den and Broad-street» firm, which is famous in the USA and Canada, can provide information millions of companies by evaluating the creditworthiness of trade and production companies and other economic entities according to 14 indicators [2].

Analytical procedures [3] (ISA 520-Analytical procedures) usually include the use of general financial ratios in the planning process and the final review of audited financial statements [4]. According to American economists E.A. Arens and J.K. Loebbecke auditing analytical procedures often include summarizing financial ratios both in the audit planning process and in the final examination of financial statements. They help to understand the latest events, the financial situation of the economic system and to approach the financial statements from the position of users. A comprehensive financial analysis can be effective in identifying areas of problems that require additional analysis and audit testing, and areas of commercial problems that the auditor can provide solutions [5].

METHODOLOGY

Audit is a systematic process of objectively obtaining and evaluating evidence of economic activities and events. In the text of the International Auditing Standard (IAS), the term «analytical procedures» refers to the evaluation of financial information based on the study of objective interactions between both financial and non-financial information. Analytical procedures also include the study of identified deviations and interactions that contradict other information relevant to the work or that differ significantly from expected results [6].

The basis of any audit is the evidence obtained and evaluated by the auditor [7]. Audit evidence is all information used by the auditor in reaching the conclusion on which the audit opinion is based. It includes accounting records and other information that is the basis of financial reporting. The auditor's objective is to design and perform audit procedures in such a way as to enable the auditor to obtain sufficient appropriate audit evidence to be able to develop reasonable reports on the basis of the audit opinion [6].

Regardless of the assessed risk of material misstatement, the auditor should plan and perform substantive procedures in the audit of each significant category of transactions, balance sheet accounts, and notes to the financial statements. Substantive procedures are tests performed to obtain audit evidence to detect material misstatements in financial statements, and are of two types: tests of details of transactions and balances, and analytical procedures.

Analytical procedures can be used in the planning phase of the audit as well as for the substantive test. The purpose of analytical activities is to identify and reduce risk areas for planning the nature, timing and scope of audit processes. In general, in the process of conducting an audit, the purpose of analytical activities is to evaluate the conclusions reached and evaluate the overall financial

statement. It can be used to detect serious data errors that other tests miss, such as fraud or reporting errors. At the substantive examination stage of the audit, the general situation is determined, that is, analytical procedures are used to reduce the risk of misstatement in order to obtain evidence to identify incorrect information on the balance sheet. Analytical procedures can be used throughout the audit process. The use of analytical procedures increases the quality of the audit and saves time spent on it [8].

Below we determine the change of the ratio method of analytical procedures for the first and second order factors. Also, based on the results of the calculations, we provide comments on what additional substantive tests the auditor can conduct.

RESULTS

Current, quick and cash liquidity ratios are used to assess the company's ability to pay its short-term obligations, i.e. up to one year. Calculations of these coefficients are presented in Table 1 on the example of an enterprise. If we focus on the data in the table, only the cash liquidity ratio has improved in the enterprise. We can observe a decrease in other indicators. This indicates that the ability of the company to cover its obligations for up to one year and in the medium term is very low.

Table 1 Liquidity ratios of «ABC» company

Indicators	The Beginning of 2023 year	The End of 2023 year	The difference +/-
cash liquidity ratio	0,0003	0,0182	+0,0179
quick liquidity ratio	0,86	0,36	-0,5
Current (total) liquidity ratio	3,90	1,79	-2,11

The excess of current assets over short-term financial liabilities provides a reserve for losses. «Such losses can occur during the placement and liquidation of all current assets in the enterprise, except for cash. The larger the reserve, the more confident creditors are that their debts will be repaid. Usually, if this ratio is higher than 2, it is considered satisfactory. Current assets which is twice more than short-term liabilities creates a basis for stable growth of production and financial condition of the enterprise» [9].

Beginning of the year:	C _{C.L.}	=	$\frac{76641116,19}{19667210,8}$	=	3,90
Ending of the year:	C _{C.L.}	=	$\frac{128749702,52}{72002062,62}$	=	1,79

Calculations show that the current liquidity in «ABC» LLC decreased by 2.11 (1.79 - 3.90) points by the end of the year. Therefore, the current liquidity has decreased significantly during the year 2023. This is extremely dangerous for the economy when the company's accounts payable increase and unexpected situations occur, i.e., an unexpected decrease in the market value of current assets or a decrease in cash flow.

First of all, it is necessary to determine how the current liquidity ratio has changed due to the first-order factors:

$$C_{C.L.0} = \frac{CA_0}{CL_0} = \frac{76641116,19}{19667210,8} = 3,9$$

$$C_{C.L.cond} = \frac{CA_1}{CL_0} = \frac{128749702,52}{19667210,8} = 6,55$$

$$C_{C.L.1} = \frac{CL_1}{CL_1} = \frac{128749702,52}{72002062,62} = 1,79$$

Total change in current (total) liquidity ratio:

$$1,79 - 3,9 = -2,11$$

$$\text{Due to the increase in current assets: } 6,55 - 3,9 = +2,65$$

$$\text{Due to the increase in current liabilities: } 1,79 - 6,55 = -4,76.$$

These additional increases can then be spread over secondary factors using the proportional method. In this case, each component of current assets is determined by multiplying the share of each factor in the total additional growth of the current (total) liquidity ratio by the additional growth factor under the influence of this factor. The impact of secondary factors on the amount of the liquidity ratio is calculated in the same order for current liabilities (Table 2).

Table 2 Calculation of the impact of secondary factors on the amount of the current liquidity ratio in the «ABC» enterprise (2023 y.)

Factors	Absolute growth, in thousand sum	Share of impact of each factor in total additional growth, %	Impact Calculations	Level of impact
Total change in current assets	+52 108 586,33	100	6,55-3,9	+2,65
Stock (inventory)	+42 395 214,97	81,36	$0,814 \times 2,65$	+2,156
future period costs	+800 467,89	1,54	$0,015 \times 2,65$	+0,041
accounts receivable	+7 610 210,98	14,60	$0,146 \times 2,65$	+0,387
cash and short-term investments	+1 302 692,49	2,50	$0,073 \times 1,22$	+0,066
Total change in liabilities	+52 334 851,82	100	1,79 -6,55	-4,76
debts to suppliers and contractors (line 610)	+23 996 108,32	45,85	$0,456 \times -4,76$	-2,182
advance payments received (line 670)	+11 079 530,36	21,17	$0,212 \times -4,76$	-1,007
arrears for payments to the budget (line 680)	+3 864 882,89	7,38	$0,074 \times -4,76$	-0,351
arrears for payments to state trust funds (line 700)	+23 408,07	0,04	$0,0004 \times -4,76$	-0,002

wage arrears (line 720)	+181 589,76	0,35	0,004 × -4,76	-0,017
short-term bank loans (line 730)	+11 296 919,54	21,59	0,216 × -4,76	-1,027
other short-term debts (line 760)	+146 170,76	0,28	0,003 × -4,76	-0,013
Deferred income (640)	+1 071 784,94	2,05	0,021 × -4,758	-0,097
Current part of long-term liabilities (750)	+674 457,18	1,29	0,013 × -4,76	-0,061

If we examine balance sheet assets in Table 2, it can be seen that the components that have the most impact on the current liquidity ratio are reserves at 0.814 (+2.156 impact) and accounts receivable at 0.146 (+0.387 impact). In our opinion, relying on the hypothesis method of audit, such sudden changes can be verified by cross-comparison of goods (finished goods, production) reports and invoices, warehouse inventory, etc. This requires the auditor to examine this balance sheet item at a lower materiality level and to conduct a more in-depth study of the possibility of embezzlements and frauds in this section, to conduct an audit examination of trend analysis and work activity ratios with the help of detailed analytical procedures.

Analyzing the liabilities of the balance sheet, we can observe that accounts payables to suppliers increased by 0.456 (impact of -2.182), short-term bank loans by 0.216 (impact of -1.027), receivables by 0.212 (impact of -1.007) and payments to the budget by 0.074 (impact of -0.351) have increased. As it can be seen from the analysis, the indebtedness to the suppliers of goods has increased. Violation of payment discipline in an enterprise can be caused by various reasons. Here, the auditor should study the reasons for the company's failure to meet its obligations on time and, if the issue is related to the decrease in cash flow, the reason for it, by conducting analytical actions, conversations (verbal and non-verbal studies) and, when necessary, by obtaining information from the creditor companies. Because such an increase in accounts payable in a year is a negative situation. Accordingly, it is necessary to compare the production report of the enterprise with the warehouse account and, if necessary, to study the situation in similar enterprises.

DISCUSSION

It should also be said that here the threshold of materiality is determined based on the internal control environment of the enterprise and the results of tax and other audits of previous years, as well as the tasks set by the management of the enterprise to the auditors. Also, in order to know more clearly the sharp changes in these components, it is necessary to use other methods of analytical procedures and, when it is necessary, study the reasons on the basis of non-financial information.

It should be noted that the level of the liquidity ratio does not in itself indicate whether the solvency is good or bad. When assessing its level, it is necessary to take into account the rate of turnover of funds in current assets, and if the funds circulate faster than the period when payment obligations can be delayed, then the solvency of the enterprise is normal. At the same time, the permanent shortage of cash funds leads to chronic insolvency of the enterprise. This can be considered as the first step towards bankruptcy. In such a situation, the need for related services and solutions provided by audit companies within the framework of related services for business entities increases. Thus, auditors should develop reports useful for future economic decisions of interested parties (client, bank, investor, shareholder, participant, property owners, beneficiary) taking into

account all aspects of the issue.

CONCLUSIONS

To summarize, some features of the ratio method used in the audit process of ISA No. 520 in the business entities were revealed. In particular, the influence of the first and second-order factors in the analytical procedures during the audit process was brought out in the context of the auditor's judgments. However, in this article, only quantitative analytical procedures were performed in the application of analytical procedures in the auditing of the enterprise's activities. The inclusion of qualitative indicators in audit judgments is important for the overall quality of the audit and for the formation of useful audit reports for economic decision-makers.

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