

**"INTERNATIONAL SCHOOL OF FINANCE TECHNOLOGY AND SCIENCE"  
THE IMPORTANCE OF CREATING SOFTWARE FOR ANALYZING THE  
FINANCIAL SITUATION OF ENTERPRISES IN THE CONTEXT OF THE  
INTRODUCTION OF THE DIGITAL ECONOMY**

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*This article demonstrates the importance of analyzing the financial status of enterprises in the context of the introduction of the digital economy, the approaches of various local and foreign economists to the determination of financial indicators, the directions of the analysis, and the results of research on the possibility of creating software for the implementation of the financial status analysis.*

*Digital economy, financial position, equity, debt capital, current ratio, financial independence, solvency, depreciation of fixed assets, return on equity, return on assets, financial stability, crisis situation. ACM Reference Format:*

## **INTRODUCTION**

Financial status is the main description of the efficiency of the enterprise. This indicator represents the ability of the enterprise to finance its activities. The financial status of the enterprise is characterized by the provision of financial resources, their correct placement, efficiency of use, mutual financial relations with other legal entities and individuals, solvency, financial stability. This, in turn, creates the need to create a unique systematic methodology and its software in order to increase the efficiency of financial analysis. "Network and regional leaders must understand that there will be no results or development without digitization. Leaders at all levels should make it a daily task to thoroughly study the field of digitization, starting with the alphabet. According to the President of republic of Uzbekistan "The country's economy has no future without a digital economy" [1].

Moreover, in recent years according to the reforms implemented in Uzbekistan, rapid growth of labor productivity in the industry has been achieved. First of all, comprehensive support of exporting enterprises and ensuring their stable operation, expanding the resource base in the real sector of the economy and increasing investment activity, reducing the consumption of energy and resources in the economy, widely introducing energy-saving technologies in production, supporting private business entities. measures taken to strengthen support were the reason[6].

This paper consists of five sections. Section 2 covers investigations till this time. Research methodology is given in Section 3. Results of our analysis are demonstrated in Section 4. And finally conclusion of investigation is given Section 5.

## LITERATURE REVIEW

According to G.V. Savitskaya, the financial condition of the enterprise reflects the ability of the economic entity to maintain its activity, its solvency and investment attractiveness [9].

Looking to the B.Usmonov valuation financial condition of company will be demonstrated as the process of determining the economic value of a company and the valuation process will be analyzed by determining worth each departments of company. [16]

Researchers I. G. Davydenko, V. A. Aleshin, and A. I. Zotova [5] also had idea that company valuation determining with its fair value will be effective for some reasons, such as sale value, establishment of partner ownership, process od tax and taxation. These will give information about whole company value. Moreover, it is important to know about financial condition of company before evaluating it. According to the researchers it is characterized by the provision of financial resources necessary for the optimal operation of the economic entity, their aimful placement and effective use, simultaneously, financial cooperation with other legal entities and individuals, solvency and financial stability [15].

## RESEARCH METHODOLOGY.

"In the conditions of the modern economy, the activity of each economic entity is the subject of attention of market relations participants. Therefore, it is necessary to identify and eliminate deficiencies in financial activity, and to identify reserves for improving the financial condition of the enterprise. The fact that the enterprise makes payments on time and is able to finance its activities indicates that it has a good financial condition.

Analysis of the financial situation allows to solve the following tasks:

- assessment of the volume of provided services and the flow of financial resources necessary to improve the financial condition of the enterprise;
- creation of models for assessing and predicting the financial situation, carrying out factor analysis;
- forecasting possible financial results based on real conditions of economic activity;
- development of specific measures for more efficient use of financial resources and strengthening of financial position" [7].

Therefore, the analysis of the financial situation of the enterprise is a complex activity of evaluating and analyzing the indicators that represent the real image of the financial situation.

Usually, the practice of using financial ratios in the analysis of the company's financial situation is widespread. Various financial coefficients are used by economists in the analysis of the financial situation of the enterprise.

Table 1. Indicators of assessing the financial condition of enterprises [11]

•	•	Authors	•	Financial ratios	•	Determination
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<ul style="list-style-type: none"> <li>• G. V. Iskaya [9]</li> </ul>	<ul style="list-style-type: none"> <li>• 1. Financial dependence ratio</li> <li>• 2. Financial dependence</li> <li>• 3. Current debt ratio</li> <li>• 4. Long-term financial dependence ratio</li> <li>• 5. Debt coverage ratio equity</li> <li>• 6. Financial leverage</li> </ul>	<ul style="list-style-type: none"> <li>• Total amount of equity / Total assets</li> </ul>
		<ul style="list-style-type: none"> <li>• Debt Capital / Total assets Amount</li> </ul>
		<ul style="list-style-type: none"> <li>• Short-term liabilities / Total assets</li> </ul>
		<ul style="list-style-type: none"> <li>• Equity to Debt Ratio / Total assets</li> </ul>
		<ul style="list-style-type: none"> <li>• Equity / Debt</li> </ul>
		<ul style="list-style-type: none"> <li>• Debt capital / equity capital</li> </ul>
		<ul style="list-style-type: none"> <li>• The high level of the first, fourth and fifth indicators, and the low level of the second, third and sixth indicators indicate the stability of the company's financial situation.</li> </ul>
<ul style="list-style-type: none"> <li>• I. G. Lydenko, V. A. Aleshin, Zotova [5]</li> </ul>	<ul style="list-style-type: none"> <li>• 1. Capitalization</li> <li>• 2. Coefficient of sufficiency</li> <li>• 3. Financial dependence ratio</li> <li>• 4. Funding ratio</li> <li>• 5. Financial liability coefficient</li> </ul>	<ul style="list-style-type: none"> <li>• Debt capital / equity capital (must be less 1.5).</li> </ul>
		<ul style="list-style-type: none"> <li>• (Equity - Non-current assets) / Current assets.</li> </ul>
		<ul style="list-style-type: none"> <li>• Equity / Total assets (optimal <math>\geq 0.4-0.6</math>).</li> </ul>
		<ul style="list-style-type: none"> <li>• Equity / Debt capital, (normal <math>&gt;0.7</math>, optimal <math>\geq 0.5</math>).</li> </ul>
		<ul style="list-style-type: none"> <li>• (Equity + Long-term liabilities) / Balance sheet total, (normal <math>\geq 0.6</math>).</li> </ul>
<ul style="list-style-type: none"> <li>• M. Yu. Gimov, N. N. Andarova [8]</li> </ul>	<ul style="list-style-type: none"> <li>• 1. Financial dependence ratio</li> <li>• 2. Equity to debt ratio</li> <li>• 3. Financial dependence ratio</li> <li>• 4. The ratio of mobility of own investment</li> <li>• 5. Debt to equity ratio</li> </ul>	<ul style="list-style-type: none"> <li>• Equity / Total assets</li> </ul>
		<ul style="list-style-type: none"> <li>• Equity / Debt capital</li> </ul>
		<ul style="list-style-type: none"> <li>• Debt Capital / Total assets</li> </ul>
		<ul style="list-style-type: none"> <li>• (Equity + Long-term loans and borrowings - Long-term assets) / Equity</li> </ul>
		<ul style="list-style-type: none"> <li>• Debt capital / equity capital</li> </ul>

At the same time, the fact that the number of financially unstable enterprises in the structure of state-owned enterprises is increasing, and the measures taken are not giving the expected effect, led to the adoption of the decision of the Cabinet of Ministers of the Republic of Uzbekistan No. 1013 "On measures to fundamentally improve the system of financial consolidation of state-owned enterprises". Also, in accordance with this Decision, the Regulation "On the procedure for providing

information for the analysis of the financial and economic status of state-owned enterprises" and the Regulation "Conducting the analysis of the financial and economic status of state-owned enterprises" were adopted as an appendix. In accordance with this Regulation, economic entities and state unitary enterprises with a state share in the authorized fund (authorized capital) are the object of analysis. [2].

Also, the procedure for analyzing the financial situation of water supply enterprises was determined by us based on this Regulation. The certificate No. DGU 2019 1606 was received by the Intellectual Property Agency of the Republic of Uzbekistan on the application of this methodology to the program entitled "Procedure for analyzing the financial situation of water supply enterprises". This program is compatible with the requirements of the digital economy and allows assessing the financial status of water supply enterprises based on their financial reports. [4].

### RESEARCH RESULTS

Based on the results of our research, a systematic model of the analysis of the financial situation of enterprises of various sectors of the economy was developed. It assesses the financial situation by calculating several financial coefficients (Table 2):

Table 2. A point system for assessing the financial condition of enterprises based on the results of the calculation of financial ratios [11]

№	Indicators	1	Ball	2 group	Ball	3	Ball
1.	Financial independence ratio (K1)	$K6 > 0,7$	15	$K6 > 0,5$	10	$K6 < 0,5$	5
2.	Solvency (coverage) (K1)	$K1 \geq 1$	15	$K1 \geq 0,7$	10	$K1 \geq 0$	5
3.	Equity ratio (K2)	$K2 \geq 0$	15	$K2 \geq 0,1$	10	$K2 \geq 0$	5
4.	Return on equity (K3)	$K3 > 0,2$	15	$K3 > 0,1$	10	$K3 < 0$	5
5.	Return on assets (K4)	$K3 > 0,2$	15	$K3 > 0,1$	10	$K3 < 0$	5
6.	Equity to debt ratio	$K5 > 1$	15	$K5 > 0,5$	10	$K > 0$	5
7.	Depreciation rate of assets (K7)	$K7 < 0,5$	10	$K7 = 0,5$	5	$K7 > 0,5$	0
	Total:		100		65		30

We present the procedure for calculating the financial coefficients presented in Table 2 (Table 3):

Table 3. Procedure for determination of financial ratios [11]

№	Indicators	Determination
1.	Financial independence ratio	Equity / Total assets
2.	Solvency (coverage) ratio	Current Assets / Current Liabilities
3.	Equity ratio (K2)	(Equity + Long-term liabilities - Long-

		assets) / Current assets
4.	Return on equity ratio (K3)	Net profit / Equity
5.	Return on assets ratio (K4)	Net Profit / Total Assets
6.	Equity to debt ratio (K5)	Equity / Debt capital
7.	Depreciation rate of fixed assets (K7)	Depreciation rate of fixed assets / Total cost of fixed assets

Also, the increase of balance sheet items compared to the beginning of the reporting period, the growth rate of current assets is higher than the growth rate of long-term assets, as well as the amount of equity capital and its growth rate of debt capital, coverage of current liabilities with current assets, high level of liquidity of assets, business and market positive changes in their assets and their high level of protection against risks indicate a good financial condition. Usually, the financial situation of economic entities can be stable, unstable, or in a state of crisis. One of the most important indicators for assessing the financial condition of an enterprise is financial stability[10]. We believe that, taking into account the specific characteristics of their enterprises, when evaluating their financial stability, they can be defined as financially stable, unstable, economically insolvent.

Based on the data of Table 2, it is possible to make a general assessment of the financial situation of enterprises of various sectors of the economy (Table 4):

Table 4. General summary [11]

№	Group	Ball	Financial stability zones
1	I	66-100	Financially stable
2	II	31-65	Financially unstable
3	III	0-30	In a crisis

From the financial data of Table 3, it can be seen that depending on the interval of the given points, the financial status of enterprises is divided into 3 groups. The company can be said to be in a financially stable state if the sum of points given by financial coefficients is in the range of 66-100 points. If the sum of points given by financial coefficients is in the range of 31-65, it means that the enterprise is financially unstable. Also, the sum of points on financial coefficients is in the range of 0-30, which indicates that it is in a state of crisis.

In the periods studied in our enterprise, this situation can be expressed as follows (Table 5):

Table 5. Evaluation of the financial situation in the point system [12]

№	Financial ratios	2020	Ball	2021	Ball
1.	Financial independence (K1)	0,98	15	0,98	15
2.	Solvency (coverage) ratio	3,56	15	2,06	15
3.	Equity ratio (K2)	0,95	15	0,93	15
4.	Return on equity ratio (K3)	0,02	5	0,02	5
5.	Return on assets ratio (K4)	0,02	5	0,02	5

6.	Equity to debt ratio (K5)	54,35	15	56,52	15
7.	Depreciation rate of fixed assets (K7)	0,49	10	0,35	10
	Total:	-	80	-	80

It can be seen from the table that in 2021, the total score for the sum of financial ratios was 80, and in 2020, respectively, it was 80. This situation indicates absolute financial stability of the enterprise.

We are developing a software project to implement this methodology. The creation of this program corresponds to the requirements of the digital economy and allows to evaluate the financial status of enterprises of various sectors of the economy based on their financial reports.

### CONCLUSION

Having studied the scientific review of the researched scientific and teaching-methodical resources and the characteristics of the financial and economic activities of enterprises of various sectors of the economy, we recommend the following as important aspects of improving their financial situation:

- ensure optimal location of assets;
- reduction of creditor obligations based on acceleration of circulation of working capital;
- research of the optimal ratio of receivables and payables;
- development of measures to reduce receivables and payables;
- development of measures for efficient use of own funds and determination of possibilities to increase its level of usefulness;
- developing a plan for attracting debt capital and its effective use.

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