

The Contribution of Financial Analysis to Performance Measurement and the Prediction of Financial Failure in Economic Enterprises

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Abstract

This study aims to demonstrate the contribution of financial analysis tools to measuring the performance of economic enterprises and predicting the risk of financial failure. The study adopts a descriptive-analytical approach. The theoretical part presents and analyses the main basic concepts related to financial analysis and performance measurement. The applied part is based on a case study of Al-Sharq Professional Enterprise over the period 2022–2024, during which the enterprise's financial statements were analyzed using horizontal and vertical analysis, financial equilibrium indicators, liquidity ratios, and profitability ratios. In addition, the risk of financial failure that the enterprise may face during the study period was predicted using the KIDA model, and the findings obtained were discussed. The study concludes that financial analysis tools, namely horizontal and vertical analysis, financial equilibrium indicators, liquidity and profitability ratios, contribute to measuring the performance of economic enterprises by diagnosing their financial position, identifying their strengths and weaknesses, and enabling appropriate decision-making to guide the enterprise. The KIDA model also contributes to predicting the risk of financial failure faced by the enterprise. Therefore, financial analysis effectively contributes to evaluating and improving the performance of economic enterprises.

Keywords: Financial analysis, horizontal analysis, vertical analysis, financial equilibrium indicators, liquidity ratios, profitability ratios, performance measurement, financial failure, KIDA model.

1. Introduction

Financial performance measurement is of great importance within any organization, as it involves achieving sound profitability, satisfactory growth, and creating value for the benefit of the enterprise and its various stakeholders. It also aims to ensure the stability of the enterprise's financing and reduce the risks associated with resorting to borrowing. Such performance can be assessed through a set of criteria and determinants, as well as by analyzing financial indicators related to the enterprise's financial structure.

Moreover, the financial and accounting information disclosed in enterprises' financial statements is insufficient to provide a comprehensive picture of the state of their activities, as the figures presented in these statements are no longer capable of providing a clear picture of the enterprises' situation. Therefore, these data must be examined, audited, and analyzed in order to assess their success or failure and identify their strengths and weaknesses. This has necessitated the search for other methods that can complement such assessment, particularly in the context of competition, where the objective is no longer merely to achieve profit but also to ensure survival in the market.

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Financial analysis has emerged as one of the most important tools for measuring financial performance in economic enterprises. It is also considered a fundamental pillar that enables sound financial planning and diagnosis. It aims to evaluate the enterprise's operational and financial efficiency and to support strategic decision-making based on accurate data. It also helps the enterprise identify its strengths and weaknesses and assess its available resources and capabilities.

Financial analysis relies on a set of tools, including horizontal analysis, vertical analysis, financial equilibrium indicators, and ratio analysis, which provide a sound view of the enterprise's financial performance and financial position, in addition to predicting the risk of financial failure that the enterprise may face.

1.1. Research Problem

Does financial analysis contribute to performance measurement and the prediction of financial failure?

To answer the main research question, it can be broken down into the following sub-questions:

- How do horizontal and vertical analyses contribute to measuring the performance of an economic enterprise?
- How do financial equilibrium indicators contribute to measuring the performance of an economic enterprise?
- How does financial ratio analysis (liquidity ratios and profitability ratios) contribute to measuring the performance of an economic enterprise?
- Does Al-Sharq Professional Enterprise face the risk of financial failure according to the KIDA model?

2.1. Research Hypotheses

To answer the questions raised and achieve the objectives of the study, the following hypotheses can be formulated:

- Horizontal and vertical financial analyses contribute to measuring the performance of an economic enterprise by analyzing the structure of its assets and liabilities.
- Financial analysis using financial equilibrium indicators (Working Capital **FR**, Working Capital Requirement **BFR**, and Cash Position **Tr**) contributes to measuring the enterprise's performance by providing a diagnosis of its financial position.
- Financial analysis using financial ratios (liquidity ratios and profitability ratios) contributes to measuring the enterprise's performance.
- Al-Sharq Professional Enterprise faces the risk of financial failure according to the KIDA model during the period 2022–2024.

3.1. Objectives of the Study

This study aims to achieve a number of objectives, the most important of which are:

- To identify the basic concepts of financial analysis and performance measurement;
- To highlight the importance of horizontal and vertical analysis for economic enterprises;
- To highlight the importance of financial equilibrium indicators for economic enterprises;
- To demonstrate the importance of and procedures for financial ratio analysis and profitability ratios in economic enterprises;
- To highlight the importance of predicting the risk of financial failure that an economic enterprise may face;
- To identify how financial analysis is used to measure the performance of an economic enterprise in practice.

4.1. Research Methodology and Methods Used

The study adopted the descriptive-analytical approach by presenting and analyzing the main basic concepts related to financial analysis and performance measurement. It also relied on the case study method by examining the case of Al-Sharq Professional Enterprise during the period 2022–2024, based on the enterprise's financial statements for the period.

5.1. Structure of the Study

To comprehensively address the different aspects of the study topic and its variables, the study was divided into three sections as follows:

- Basic concepts of financial analysis and performance measurement;
- The conceptual framework of performance measurement;
- A case study of Al-Sharq Professional Enterprise during the period 2022–2024.

1. Basic Concepts of Financial Analysis

Financial analysis is considered an essential tool for understanding the financial position of economic enterprises and evaluating their performance. It provides an in-depth overview of an enterprise's financial condition and helps in making informed decisions. It also aims to measure performance by examining a set of indicators, thereby helping assess the extent to which the enterprise is able to achieve its objectives and operational goals.

1.2. Concept of Financial Analysis

Several definitions of financial analysis have been proposed, among which the following are the most important:

- Financial analysis is a means of understanding a company through accounting data and methods aimed at forming a general judgment about the company's performance and its financial position, both current and future.ⁱ
- Financial analysis is a systematic process of processing available data with the aim of obtaining information used in decision-making, evaluating the performance of enterprises in the past and present, and forecasting their future performance.ⁱⁱ
- Financial analysis is the use of financial statements to analyze an enterprise's financial position and performance and to forecast its future financial performance.ⁱⁱⁱ

Accordingly, financial analysis can be defined as a process based on extracting a set of financial indicators and ratios from information contained in financial statements for previous periods and using them to diagnose the enterprise's position by measuring and evaluating its performance during previous or current years and forecasting future events, with the aim of making appropriate decisions to guide the enterprise's activities.

2.1. Importance of Financial Analysis

The importance of financial analysis can be summarized in the following points:^{iv}

- It helps the enterprise's management formulate its objectives and consequently prepare the annual plans required for conducting its economic activities;
- It enables management to correct deviations as they occur by taking the necessary corrective measures;
- It helps identify new investment opportunities;
- It is considered an effective tool for increasing the effectiveness of the auditing process;
- It helps diagnose the enterprise's financial condition;
- It determines the enterprise's capacity to obtain loans and meet its debt obligations;
- It helps assess the soundness of the financial policy adopted within the enterprise;

- It helps assess the efficiency of the enterprise's management.

3.1. Objectives of Financial Analysis

Financial analysis is fundamental to making sound decisions and assessing management efficiency and its ability to achieve the optimal investment of its resources. Accordingly, financial analysis aims to achieve the following:^v

- To evaluate the company's financial and cash position;
- To evaluate the outcomes of investment and financing decisions;
- To identify deviations between actual and planned performance and diagnose their causes;
- To make use of the analysis results in preparing future budgets and plans;
- To identify the opportunities available to the company that can be exploited;
- To predict the likelihood of failure that the company may face;
- To provide decision-makers with quantitative and qualitative information;
- To assess the company's solvency in the short and long term.

To achieve these objectives, the results of financial analysis must be treated with caution, as the inputs of the financial analysis process are accounting data extracted from financial statements prepared in accordance with accounting rules and standards. Furthermore, some items in financial statements may be subject to judgment and personal estimation, such as accounting estimates, which may lead to variations in the results of financial analysis over the period under consideration.

1. Conceptual Framework of Performance Measurement

1.2. Concept of Performance

The term *performance* is derived from the English word "To Perform," which itself originates from the Latin "Performer," meaning to execute a task or perform an activity.^{vi} Researchers have differed in defining the concept according to their respective perspectives. Among the various definitions of performance are the following:

- Performance is described as "a reflection of the enterprise's ability and capacity to achieve its objectives,"^{vii} which is demonstrated through the enterprise's success in achieving its established objectives.
- Performance is defined as the enterprise's ability to achieve its objectives according to established standards and in interaction with its environment, as a result of using its available resources in an efficient and effective manner.^{viii}
- Bromily et al. Miller consider performance to be a reflection of how financial and human resources are used and exploited by the enterprise efficiently and effectively, enabling it to achieve its established objectives.^{ix}

Based on the foregoing, performance can be regarded as an outcome that reflects the effectiveness of the activities undertaken by the enterprise. It also expresses the enterprise's efficiency in utilizing its resources to achieve its established objectives through these activities while adhering to the established standards.

2.1. Components of Performance

Based on the aforementioned definitions, performance rests on two fundamental components: effectiveness and efficiency. In other words, assessing an enterprise's performance requires combining effectiveness and efficiency in management. Accordingly, these two concepts will be analyzed and elaborated as follows:

- **Effectiveness:** Management researchers consider effectiveness to be one of the tools used for management control within an enterprise. Accordingly, effectiveness reflects the degree to which established objectives are achieved. Classical thinkers also regarded effectiveness in

terms of profits achieved. From this perspective, the effectiveness of an enterprise is measured by the amount of profit it generates. Accordingly, this concept can be examined through the following definitions:

- Vincent Plauchet considers effectiveness to be the ability to achieve the anticipated activity and attain the targeted results.^x
- According to Ruibert et al. Walker, effectiveness is related to the strategic objectives of the enterprise. Accordingly, they view effectiveness as the enterprise's ability to achieve its strategic objectives, such as increasing sales and maximizing its market share in comparison with competitors, among others.^{xi}

It can be translated as follows:

Effectiveness

Based on the foregoing, it can be concluded that effectiveness means “**doing the right things**” in order to achieve objectives. The definitions above show that effectiveness establishes a link between the objectives set out in the enterprise's plans and programs and the results actually achieved. Accordingly, it can be expressed as the ratio of the value of the results achieved to the objectives set. It therefore represents the relationship between achieved objectives and predetermined objectives, as follows:

$$\text{Effectiveness} = \text{Results Achieved} / \text{Objectives Set}$$

Efficiency

Authors and researchers have differed in their definitions of efficiency. Some of these definitions can be presented and analysed as follows:

- According to Wellber et al. Ruekerts, efficiency is the enterprise's productive capacity.^{xii} From this definition, it can be inferred that efficiency refers to the productivity of an enterprise, which is expressed in terms of outputs relative to inputs.
- According to Vincent Plauchet, efficiency is the ability to perform the required task with limited resources, and an efficient activity is one that incurs the lowest cost.^{xiii} This definition therefore links efficiency to achieving objectives at the lowest possible cost.

It is clear that efficiency is based on the way resources are used in relation to the results achieved. Therefore, resources must be rationalized and utilized efficiently in order to keep costs low and maximize profits. The basis of efficiency is thus to maximize profit and minimize costs. Efficiency can be represented by the following relationship:

$$\text{Efficiency} = \text{Results Achieved} / \text{Resources Used}$$

3.1. Performance Levels

There are several levels of performance that help identify the level of performance achieved, as follows:^{xiv}

- **Exceptional Performance:** This is performance that demonstrates the enterprise's long-term superiority, favourable and comfortable contracts, clear commitment from key personnel, abundant cash, and a prosperous financial position.
- **Outstanding Performance:** This is performance that demonstrates industry leadership, the acquisition of several major business contracts, the possession of a highly competent and motivated workforce, and an excellent cash position.

- **Very Good Performance:** This indicates a robust level of performance, the availability of future prospects, competent personnel, and a sound financial position.
- **Good Performance:** This is performance that is in line with prevailing standards, with a balance between strengths and weaknesses in products and services, the customer base, and personnel, while maintaining a relatively unstable financial position.
- **Moderate Performance:** This is below-average performance, in which weaknesses outweigh strengths in products, services, the customer base, and personnel, or where access to the funds necessary for survival and growth is difficult.
- **Weak Performance:** In this case, performance is significantly below average, with weaknesses evident in almost all areas, in addition to serious difficulties in financial matters.
- **Critical Performance:** This refers to completely inefficient performance that is likely to cause various significant problems across all areas of the organization's operations.

4.3. Definition of Financial Performance

Financial performance is defined as the diagnosis of an enterprise's financial health in order to determine its ability to create value and face future challenges, while taking into account the economic environment and the industrial sector to which the enterprise belongs. On this basis, performance is diagnosed by examining the enterprise's economic profitability and profit growth rate.^{xv}

Financial performance also refers to maximizing results by improving profitability. This is achieved through continuously reducing costs and maximizing revenues over the medium term, with the aim of both accumulating wealth and maintaining a certain level of performance.^{xvi}

Accordingly, financial performance is a tool that makes it possible to:

- Encourage investors to invest in companies with good financial performance (attracting and encouraging investors);
- Identify weaknesses (gaps) and financial constraints facing the enterprise and address them, while identifying strengths and investing in them;
- Motivate employees and management within the company to achieve better results and improve financial standards;
- Identify the company's existing financial position at a specific point in time.

5.3. Definition of Performance Measurement

Several definitions of performance measurement have been proposed, including the following:

- The continuous monitoring and recording of an organization's program achievements, particularly monitoring and recording the progress made towards achieving predetermined goals.^{xvii}
- A systematic method for evaluating inputs, outputs, and production processes in industrial and non-industrial organizations.^{xviii}
- A tool used to examine the activities of an enterprise in order to measure the results achieved and compare them with planned objectives, identify deviations, diagnose their causes, and determine appropriate corrective measures. The comparison is generally made between what has actually been achieved and what was targeted at the end of a given period.^{xix}

Based on the above definitions, it can be concluded that performance measurement is based on:

- Measuring the extent to which established objectives have been achieved, i.e., evaluating the effectiveness of performance;
- Measuring the efficiency of using available resources to achieve these objectives and assessing the appropriateness of the methods adopted to achieve them, i.e., evaluating the efficiency of

performance.

6.3. Relationship between Financial Analysis and Performance Measurement

The relationship between financial analysis and performance measurement is **complementary**, as follows:

- **Financial analysis supports performance measurement:** Financial analysis helps provide the information necessary to determine whether a company is achieving its financial objectives. For example, if an enterprise achieves good profits but simultaneously demonstrates weak cost-management effectiveness, this may indicate that its performance is not optimal, even if the results appear favorable.
- **Performance measurement guides financial analysis:** Through performance measurement, weaknesses within the enterprise can be identified and addressed for improvement. This helps financial analysis focus on specific areas, such as liquidity or operational efficiency. If objectives are not achieved in certain areas, such as declining profitability, financial analysis helps identify the possible causes and diagnose the financial situation.

Accordingly, financial analysis is a powerful tool for measuring and analyzing performance, and the two work together to guide financial and strategic decisions, thereby contributing to the sustainability of the enterprise.

1. Case Study of Al-Sharq Professional Equipment Enterprise

The case study method was adopted for the applied part of the study by relying on financial analysis methods and tools and applying them to the financial statements of Al-Sharq Professional Equipment Enterprise, a public enterprise specializing in the manufacture and assembly of professional equipment, for the years 2022, 2023, and 2024.

The years 2020 and 2021 were excluded because they coincided with the COVID-19 pandemic, which affected the country and the world as a whole. These years were not considered suitable for the purposes of the study because of the low level of activity during that period as a result of the precautionary measures adopted by the state to contain the virus.

1.2. Technical Profile of Al-Sharq Professional Equipment Enterprise

ESTEP was established through the organizational restructuring of the former HELLIT Holding in July 1999 (currently SGP INDELEC). Since its establishment, the enterprise has operated primarily in the professional equipment production sector in the eastern and south-eastern regions of the country.

- **Company Name:** Al-Sharq Professional Equipment Enterprise;
- **Legal Form:** State-owned joint-stock company;
- **Registered Office:** Africa Street, Municipality of Annaba;
- **Year of Commencement of Activities:** Al-Sharq Professional Equipment Enterprise was established following the restructuring of **ENAPAT-SGP INDELEC** on 01/07/1999;
- **Current Share Capital:** DZD 382,690,000;
- **Workforce as of 30/12/2024:** 73 employees;
- **Shareholder:** SGP INDELEC, holding 100% of the shares;
- **Business Sector:** Manufacturing, maintenance, and marketing of professional equipment.

Manufactured Products: Bakery and pastry equipment and accessories; catering, fast-food, and cafeteria equipment; industrial laundry rooms; industrial refrigeration equipment; cold rooms with removable hooks; and Centennial refrigerators.

2.1. Presentation of the Financial Statements

▪ Statement of Financial Position (Balance Sheet):

The statement of financial position reflects the company's financial position at a specific point in

time, generally at the end of a financial year. It represents the summary of accounting procedures and their applications. The balance sheet consists of two sections or statements, namely:

- **A statement of assets:** This represents short-term investment decisions (current assets) and long-term investment decisions (fixed assets). The following table presents the statement of financial position—assets side—of Al-Sharq Professional Equipment Enterprise for the years 2022, 2023, and 2024.

Table No. (01): Statement of Financial Position – Assets Side

Item	2022	2023	2024
NON-CURRENT ASSETS			
Positive or negative acquisition difference (GOODWILL)	–	–	–
Intangible assets	65,745.51	55,996.47	46,247.43
Property, plant and equipment	2,549,159,982.81	2,535,693,613.10	2,522,440,762.04
Land	2,340,067,000.00	2,340,067.00	2,340,067,000.00
Buildings	182,856,998.08	171,080,323.86	165,751,024.72
Other tangible fixed assets	26,234,984.73	24,546,289.24	16,622,737.32
Fixed assets granted under concession	–	–	–
Fixed assets under construction	–	–	–
Financial assets	–	–	–
Securities accounted for using the equity method – participating entities	–	–	–
Other investments and related receivables	146,195.92	146,195.92	146,195.92
Other fixed securities	–	–	–
Non-current loans and other financial assets	8,610,294.02	9,264,622.07	5,825,610.27
Deferred tax assets	56,698,760.93	57,956,614.71	57,956,614.71
Intercompany accounts	–	–	–
TOTAL NON-CURRENT ASSETS	2,614,680,979.19	2,603,117,042.27	2,586,415,430.37
CURRENT ASSETS			
Inventories and work in progress	52,205,960.98	36,150,970.97	50,588,047.41
Trade receivables – similar uses	–	–	–
Customers	48,069,061.64	79,363,775.53	111,961,165.88
Other receivables	18,573,264.39	15,917,713.68	25,738,678.25
Taxes	65,989,386.32	62,734,989.51	12,425,961.05
Other current assets	–	–	–
Cash and cash equivalents	–	–	–
Treasury funds	–	–	–
Cash and cash equivalents	6,278,742.56	8,099,506.94	30,353,626.19
TOTAL CURRENT ASSETS	191,116,415.89	202,266,956.63	231,067,478.78

TOTAL ASSETS	2,805,797,395.08	2,805,383,998.90	2,817,482,909.15
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Source: Company's statements of financial position for the years 2022, 2023, and 2024.

Statement of Financial Position – Equity and Liabilities Side

- **Statement comprising equity (shareholders' equity) and liabilities:** This reflects financing decisions, whether through debt financing (current and non-current liabilities) or equity financing (shareholders' equity). The following table presents the statement of financial position—liabilities side—of Al-Sharq Professional Equipment Enterprise for the years 2022, 2023, and 2024.

Table No. (02): Statement of Financial Position – Liabilities Side

Item	2022	2023	2024
SHAREHOLDERS' EQUITY			
Issued capital (or operator's account)	382,690,000.00	382,690,000.00	382,690,000.00
Uncalled capital	—	—	—
Premiums and reserves (consolidated reserves)	1,183,489.36	1,183,489.36	1,183,489.36
Revaluation difference	2,187,693,179.72	2,187,693,179.72	2,187,693,179.72
Equity-method difference	—	—	—
Net income (net income – Group share)	(110,626,907.15)	(36,596,885.96)	(84,984,563.99)
Other equity / retained earnings	(571,672,606.03)	(682,299,513.18)	(698,180,683.50)
Consolidated company share	—	—	—
Minority interest	—	—	—
TOTAL (1)	1,889,267,155.90	1,852,670,269.94	1,788,401,421.59
NON-CURRENT LIABILITIES			
Loans and financial debts	139,304,823.66	139,304,823.66	137,854,023.66
Taxes (deferred and provisioned)	11,690,104.91	14,680,620.19	15,528,133.70
Other non-current liabilities	—	—	—
Provisions and products recognized in advance	22,611,112.04	25,152,281.48	22,031,407.14
TOTAL NON-CURRENT LIABILITIES (2)	173,606,040.61	179,137,725.33	175,413,564.50
CURRENT LIABILITIES			
Suppliers and related accounts	99,281,753.44	96,910,697.95	67,144,305.06
Taxes	43,463,825.65	55,479,541.52	34,066,211.31
Other liabilities	349,745,456.58	370,859,508.18	343,248,520.25
Liabilities cash position	250,433,162.90	250,326,255.98	409,208,886.44
TOTAL CURRENT LIABILITIES (3)	742,924,198.57	773,576,003.63	853,667,923.06
TOTAL LIABILITIES AND EQUITY	2,805,797,395.08	2,805,383,998.90	2,817,482,909.15

Source: Company's statements of financial position for the years 2022, 2023, and 2024.

▪ **Income Statement (Statement of Profit or Loss)**

This statement presents the company's revenues and expenses, i.e., it reflects the results of the company's operations (profit or loss). It is prepared in a manner that presents all revenues generated by the company together with the corresponding expenses, whether arising from the company's actual operating activities or from other activities.

Table No. (03): Income Statement

Item	2022	2023	2024
Sales and related products (revenue)	114,745,645.41	123,194,049.64	92,217,803.18
Changes in inventories of finished products and work in progress	(3,958,277.17)	(8,783,156.31)	8,240,066.94
Capitalized production	—	—	—
Operating subsidies	—	—	—
Production for the financial year (1)	110,787,368.24	114,410,893.33	100,457,870.12
Consumed purchases	(59,888,236.21)	(50,188,608.17)	(65,245,535.41)
External services and other consumption	(8,547,773.97)	(12,181,611.10)	(14,147,895.98)
Consumption for the financial year (2)	(68,436,010.18)	(62,370,219.27)	(79,393,431.39)
Value added from operations (3 = 1 – 2)	42,351,358.06	52,040,674.06	21,064,438.73
Personnel expenses	(85,785,358.93)	(88,832,795.00)	(83,210,229.01)
Taxes, duties, and similar payments	(1,409,173.87)	(2,350,579.36)	(1,749,796.36)
Gross operating surplus (4)	(44,843,174.74)	(39,142,700.30)	(63,895,586.64)
Other operating income	7,130,199.38	6,817,084.24	2,692,876.96
Other operating expenses	(3,685,923.19)	(3,672,527.76)	(2,252,940.03)
Depreciation, amortization, provisions, and impairment losses	(84,677,440.42)	(52,419,589.31)	(20,865,975.75)
Reversals of impairment losses and provisions	10,034,004.84	57,258,536.79	3,298,460.99
Operating income (5)	(116,042,334.13)	(31,159,196.34)	(81,023,164.47)
Financial income	753,195.79	—	—
Financial expenses	(3,830,213.34)	(6,685,543.40)	(3,951,399.52)
Financial result (6)	(3,077,017.55)	(6,685,543.40)	(3,951,399.52)
Ordinary income before tax (7 = 5 + 6)	(119,119,351.68)	(37,844,739.74)	(84,974,563.99)
Taxes payable on ordinary income	(10,000.00)	(10,000.00)	(10,000.00)
Deferred taxes (changes) on ordinary income	8,502,444.53	1,257,853.78	—
Total income from ordinary activities	128,704,768.25	178,486,514.36	106,449,208.07
Total expenses from ordinary activities	(239,331,675.40)	(215,083,400.32)	(191,433,772.06)
Net income from ordinary activities (8)	(110,626,907.15)	(36,596,885.96)	(84,984,563.99)

Extraordinary items (income) (to be specified)	—	—	—
Extraordinary items (expenses) (to be specified)	—	—	—
Extraordinary result	—	—	—
Net income for the financial year (9)	(110,626,907.15)	(36,596,885.96)	(84,984,563.99)

Source: Company's income statements for the years 2022, 2023, and 2024.

3.1. Financial Analysis of the Financial Statements of Al-Sharq Professional Equipment Enterprise for the Years 2022, 2023, and 2024

Financial balances represent the matching of financial resources with their uses, in terms of value, while taking into consideration the time factor as an influential factor in this relationship. The components of resources differ according to their periods of use, which correspond to their maturity, just as the components of uses differ according to their degree of permanence.

In this regard, the study relied on horizontal and vertical analysis, financial equilibrium indicators, liquidity and profitability ratios, in addition to predicting the risk of financial failure using the KIDA model, which involves several stages, as outlined below.

1.3.4. Preparation of the Condensed Financial Balance Sheet

Based on the balance sheets of Al-Sharq Professional Equipment Enterprise for the years 2022, 2023, and 2024, presented above, the condensed financial balance sheet was prepared as shown in the following table:

Table No. (04): Condensed Financial Balance Sheet for the Years 2022–2024

Item	2022	2023	2024
FIXED ASSETS			
Intangible fixed assets	65,745.51	55,996.47	46,247.43
Tangible fixed assets	2,549,159,982.81	2,535,693,613.10	2,522,440,762.04
Financial fixed assets	65,455,250.87	67,367,432.70	63,928,420.90
Total fixed assets (1)	2,614,680,979.19	2,603,117,042.27	2,586,415,430.37
CURRENT ASSETS			
Operating assets	52,205,960.98	36,150,970.97	50,588,047.41
Realizable assets	132,631,712.35	158,016,478.72	150,125,805.18
Cash assets	6,278,742.56	8,099,506.94	30,353,626.19
Total current assets (2)	191,116,415.89	202,266,956.63	231,067,478.78
TOTAL ASSETS (1 + 2)	2,805,797,395.08	2,805,383,998.90	2,817,482,909.15
NON-CURRENT LIABILITIES			
Shareholders' equity	1,889,267,155.90	1,852,670,269.94	1,788,401,421.59
Long-term debts	173,606,040.61	179,137,725.33	175,413,564.50
Total non-current liabilities (1)	2,062,873,196.51	2,031,807,995.27	1,963,814,986.09
CURRENT LIABILITIES			
Short-term debts	742,924,198.57	773,576,003.63	853,667,923.06
Total current liabilities (2)	742,924,198.57	773,576,003.63	853,667,923.06

TOTAL LIABILITIES (1 + 2)	2,805,797,395.08	2,805,383,998.90	2,817,482,909.15
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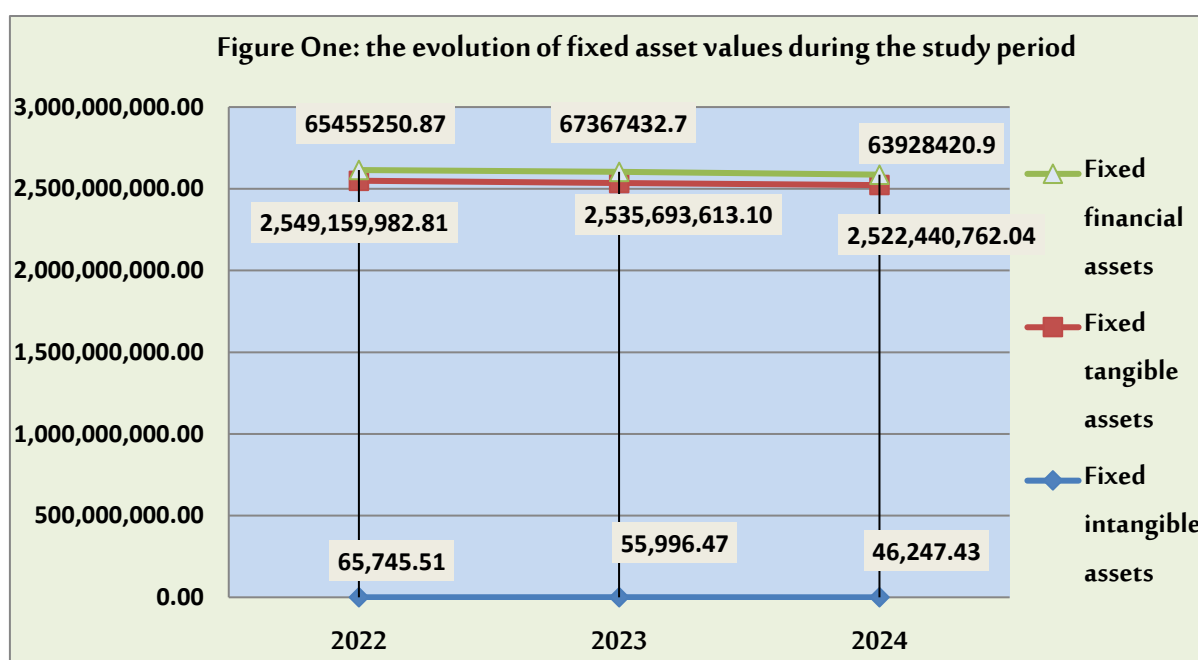
Source: Prepared by the researcher based on the data from Tables (01) and (02).

2.3.4. Analysis and Discussion of the Results of the Horizontal Analysis of Balance Sheet Items

Through the analysis of the enterprise's balance sheet using horizontal financial analysis, it was found that this approach contributed effectively to measuring the enterprise's performance during the study period. The analysis showed that the enterprise was in an unfavorable financial position. An examination of the results presented in Table No. (04) reveals the following:

▪ **Asset Items:**

Fixed assets remained relatively stable throughout the study period (2022, 2023, and 2024). This is attributable to the absence of new investments by the company. At the same time, the net value of fixed assets witnessed a slight decline in 2023 compared with 2022 and in 2024 compared with 2023, at rates of -0.44% and -0.64% , respectively. This decline is attributable to the depreciation applied to the asset components during the period, as illustrated in the following figure:



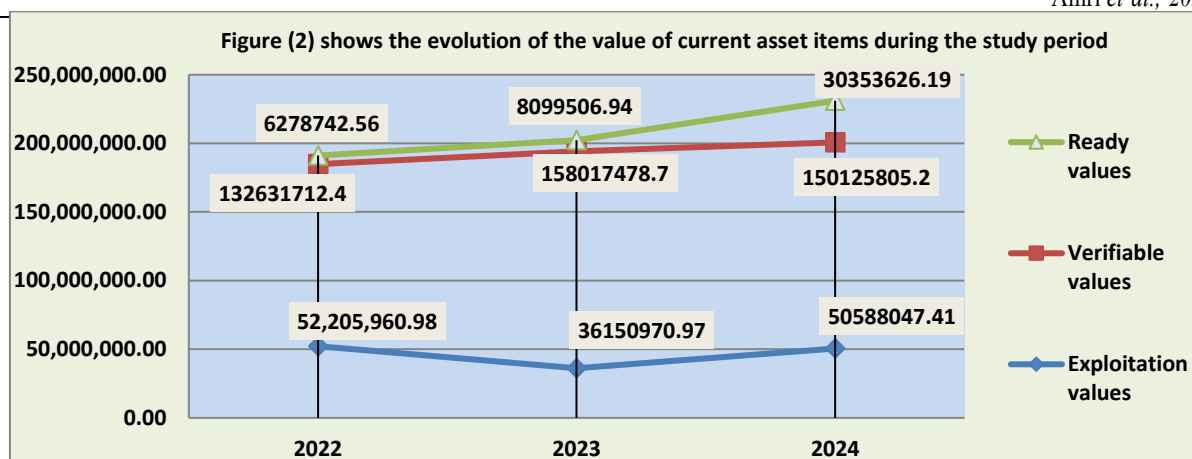
Source: Prepared by the researcher based on the data in Table (04) and Excel.

- **Current Assets** recorded a continuous increase throughout the study period. In 2023, the increase amounted to $+05.83\%$ compared to 2022, while in 2024, the increase reached $+14.23\%$ compared to 2023. The following observations can be made:

- **Operating Values**, represented by inventories, decreased in 2023 compared to 2022 by -30.75% , before increasing again in 2024 by $+39.94\%$, thereby exceeding the threshold of fifty (50) million Algerian dinars. This increase can be attributed to the higher volume of stored production during 2024.

- **Cash and Cash Equivalents** increased by $+383.73\%$ in 2024 compared to the previous year. This was due to the increase in the value of cash and cash equivalents held in the company's treasury, resulting from the company obtaining a bank advance intended to finance an import operation.

- **Receivable Values** declined in 2023 by -04.99% , before increasing again in 2024 by $+13.19\%$. This increase resulted from the rise in the value of stored production, consisting of orders pending delivery (credit sales) related to bakery ovens.

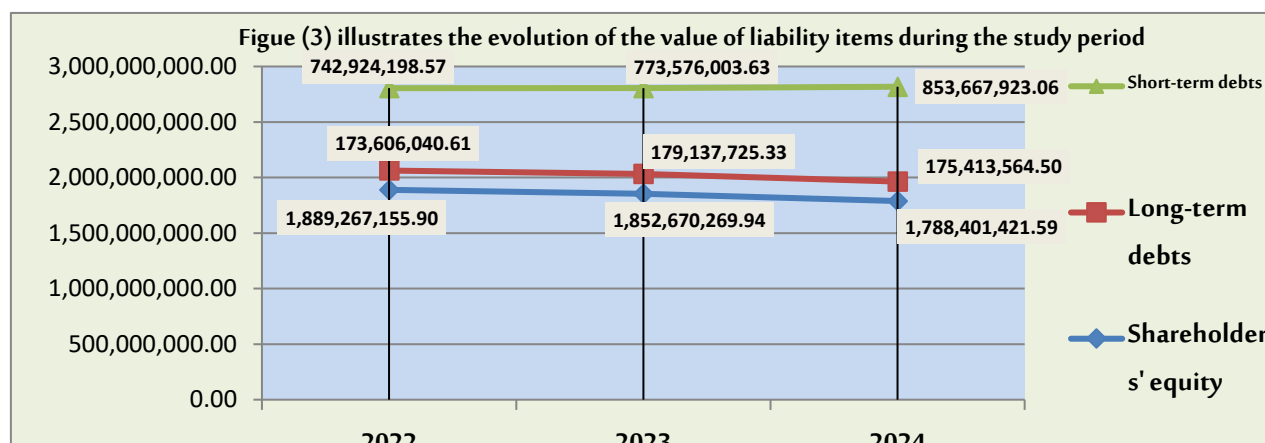


Source: Prepared by the researcher based on the data in Table (04) and the Excel program.

Liabilities Items:

- A slight decline was recorded in the **level of shareholders' equity**, with decreases of -01.94% and -03.47% in 2023 compared to 2022 and in 2024 compared to 2023, respectively. This was due to the accumulation of negative results and their carryforward to the account of prior-period results;
- **Long-term liabilities** remained relatively stable, increasing by +03.19% in 2023 compared to 2022. In 2024, they exceeded 175 million dinars, recording a decline of -02.08% compared to 2023;
- **Current liabilities** increased by +04.13% and +10.35% in 2023 compared to 2022 and in 2024 compared to 2023, respectively. This was due to the company's reliance on bank advances to finance its operating cycle, particularly to cover wages. This was accompanied by an increase in short-term liabilities, mainly reflected in higher social security liabilities and deductions, such as social service contributions and other deductions at source.

The following figure illustrates this:



Source: Prepared by the researcher based on the data in Table (04) and the Excel program.

3.3.4. Analysis and Discussion of the Results of the Vertical Analysis of Balance Sheet Items:

The 2024 balance sheet was adopted for the analysis using this method by preparing the condensed financial balance sheet in percentage terms, as presented in the following table:

Table (05): Condensed Financial Balance Sheet in Percentage Terms for 2024

Item	Amount	%	Liabilities
Non-current liabilities			
Shareholders' Equity	46,247.43	0.0016	
Long-term Debt	175,413,564.50	6.23	
Total Non-current Liabilities	1,963,817,010.09	/	
Current liabilities			
Short-term Debt	853,667,923.06	30.30	
Total Current Liabilities	853,667,923.06	/	
Total Liabilities	2,817,482,909.15	100	

Item	Amount	%	Assets
Fixed Assets			
Intangible Assets	46,247.43	0.0016	
Tangible Fixed Assets	2,522,440,762.04	89.52	
Financial Fixed Assets	63,928,420.90	2.27	
Total Fixed Assets	2,586,415,430.37	/	
Current Assets			
Operating Values	50,588,047.41	1.80	
Receivable Values	150,125,805.18	5.33	
Cash and Cash Equivalents	30,353,626.19	1.08	
Total Current Assets	231,067,478.78	/	
Total Assets	2,817,482,909.15	100	

Source: Prepared by the researcher based on the data from Tables (01) and (02).

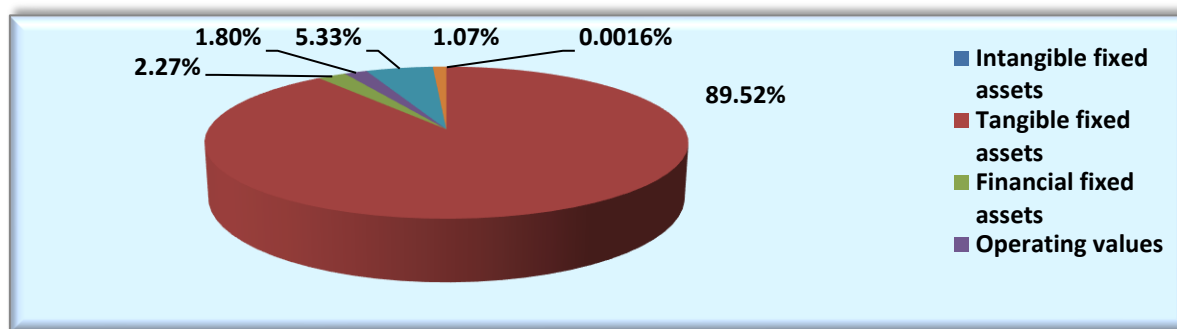
Through the analysis of the company's balance sheet using vertical financial analysis, its effective contribution to measuring the company's performance during the study period was demonstrated. The analysis showed that the company was in an unsatisfactory position. An examination of the results presented in Table (05) reveals the following:

Assets Items:

- Tangible fixed assets represent 89.52% of the total value of assets, which is attributable to the revaluation of these fixed assets in 2022. Financial fixed assets, on the other hand, accounted for 2.27%;
- Operating values represent 1.80%, corresponding to inventories held for the company's business activities;
- Receivable values represent 5.33%, indicating that the company has a significant amount of outstanding customer receivables due to weaknesses in the collection department;
- Cash and cash equivalents accounted for 1.08%, which is attributable to the low level of cash resources resulting from the decline in the company's activity.

The following figure illustrates this:

Figure (04): Composition of Asset Items in 2024

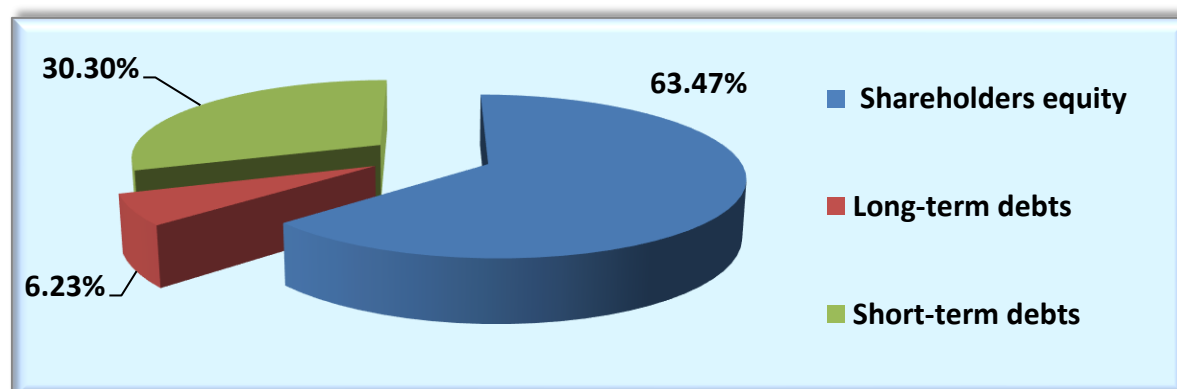


Source: Prepared by the researcher based on the data in Table (05) and the Excel program.

Liabilities Items:

- Shareholders' equity represents 63.48% of the total value of equity and liabilities, despite the accumulation of negative results. This is attributable to the revaluation surplus relating to the buildings, amounting to DZD 2,187,693,179.72;
- Short-term debt represents 30.30%, most of which consists of liabilities to the Social Security Fund and the tax authorities;
- Long-term debt accounts for 6.23%, with investment loans representing the largest component, amounting to DZD 137,854,023.66. The following figure illustrates this:

Figure (05): Composition of Liability Items in 2024



Source: Prepared by the researcher based on the data in Table (05) and the Excel program.

Based on the analysis and discussion of the horizontal and vertical financial analyses, we confirm the validity of the hypothesis stating: "Horizontal and vertical financial analysis contributes to measuring the performance of the economic entity by analyzing the position of the entity's assets and liabilities."

4.4.4. Analysis Using Financial Equilibrium Indicators:

Financial equilibrium indicators make it possible to assess the company's solvency and the financial risk associated with its operating activities. This is achieved through the use of indicators that help determine the extent to which the company maintains financial equilibrium. The most important of these are: Working Capital (FR), Working Capital Requirement (BFR), and Cash Position (Tr), as follows:

Working Capital (FR): It represents the portion of permanent funds used to finance fixed assets and is determined according to the following mathematical formula:

$$\text{Working Capital (FR)} = \text{Permanent Funds} - \text{Fixed Assets}$$

Working Capital Requirement (BFR): This indicator represents the working capital requirement, or

the optimal level of working capital for the entity's financial structure. In other words, it represents the amount of permanent funds that must be provided to finance current assets in order to ensure the entity's financial equilibrium. It is determined according to the following mathematical formula:

$$\text{Working Capital Requirement (BFR)} = \text{Requirements (Current Assets – Cash and Cash Equivalents)} - \text{Resources (Short-term Debt – Cash and Cash Equivalents)}$$

Cash Position (Tr): It represents the total assets available to the entity during the operating cycle and includes net cash and cash equivalents, i.e., the liquid funds that the entity can actually dispose of. It is determined according to the following mathematical formula:

$$\text{Cash Position (Tr)} = \text{Working Capital (FR)} - \text{Working Capital Requirement (BFR)}$$

The results are presented in the following table:

Table (07): Liquidity Ratios of Al-Sharq Professional Equipment Company During the Study Period

Year Indicator	2022	2023	2024
Current Ratio	0.26	0.26	0.27
Cash Ratio	0.0085	0.01	0.0356

Source: Prepared by the researcher based on the data in Table (04).

Profitability Ratios:

The analysis was based on economic profitability and financial profitability, as follows:

- **Economic Profitability:** This reflects the entity's efficiency in using its resources to generate profits. It is determined according to the following mathematical formula:

$$\text{Economic Profitability} = \text{Operating Income (or Income Before Taxes)} / \text{Total Assets Factor}$$

- **Financial Profitability:** This ratio represents the profit earned for each monetary unit of equity employed. In other words, it measures the return generated for shareholders on the funds they have invested in the company. It is determined according to the following mathematical formula:

$$\text{Financial Profitability} = \text{Net Income} / \text{Shareholders' Equity}$$

Factor

The results are presented in the following table:

Table (08): Profitability Ratios of Al-Sharq Professional Equipment Company During the Study Period

Year Indicator	2022	2023	2024
Economic Profitability	-0.042	-0.013	-0.030
Financial Profitability	-0.06	-0.02	-0.05

Source: Prepared by the researcher based on the data in Table (04).

Analysis and Discussion of Results and Hypothesis Testing:

Through the analysis of the company's balance sheet and income statement using financial ratios

(liquidity ratios and profitability ratios), their effective contribution to measuring the company's performance during the study period was demonstrated. An examination of the results presented in Tables (07) and (08) shows that the analysis revealed the following:

- **Current or General Liquidity Ratio below 1:** This indicates that the company is in a weak and critical financial position, as it is unable to cover its current liabilities (short-term debt) with its current assets. This is due to the lack of short-term cash flows. Consequently, the company may face a liquidity crisis, which could result in a persistent inability to meet its short-term obligations. This situation can be addressed by seeking ways to increase sales in order to dispose of inventories, as well as by paying particular attention to the collection of receivables from customers.

- **Cash Ratio below 1:** This ratio is also very low, indicating that the company requires monitoring, as it is unable to settle its short-term debt using its cash and cash equivalents alone. It therefore relies on selling its inventory to settle its liabilities. Consequently, if the company encounters difficulties in disposing of its inventory, it may face a liquidity crisis. The highest level recorded during the study period was in 2024, at 3.56%. This ratio provides a more stringent measure of the company's liquidity, as it relies on the cash and cash equivalents available to the company to meet its short-term obligations.

- **Negative Economic Profitability:** This means that each dinar invested in assets generates a negative return, resulting from the significant weakness in the company's activity. This is confirmed by the successive losses recorded during the study years (2022, 2023, and 2024), which resulted in a structural deficit in the company's activity. The company should therefore urgently examine ways to revive its activity and maximize its revenues by increasing turnover and expanding the scope of its activities.

- **Negative Financial Profitability:** This means that each dinar of shareholders' equity generates a negative return. In other words, the profit obtained for each monetary unit of equity employed is negative. This reflects the erosion of the value of shareholders' equity during the study period, which may affect the continuity of the company's activities.

This confirms the validity of the hypothesis stating: "Analysis using financial ratios (liquidity ratios and profitability ratios) contributes to measuring the company's performance."

6.4.4. Analysis Using the KIDA Model:

The **KIDA 1980 model** is considered one of the fundamental models that has proven effective in predicting financial failure. It takes a mathematical form based on five financial analysis ratios. Its first application was conducted on a sample of 40 companies, half of which were successful and the other half financially unsuccessful. The study covered a short period extending from (1974–1975).^{xx}

The model is based on five independent variables consisting of financial ratios, according to the following equation, to determine the value of the dependent variable (Z):

$$Z = 1.042X1 + 0.42X2 - 0.461X3 - 0.463X4 + 0.271X5$$

Accordingly, there are two possible cases for the value of (Z):

- **Positive (Z > 0):** This means that the company is considered safe from financial failure;
- **Negative (Z < 0):** This means that the company is at risk of financial failure.

Based on the results obtained from the study and the use of both traditional and modern financial analysis methods and tools, which demonstrated that the company is experiencing significant financial distress, the KIDA model was used to determine whether Al-Sharq Professional Equipment Company is approaching financial failure. The results are presented in the following table:

Table (09): KIDA Financial Failure Prediction Coefficient for Al-Sharq Professional Equipment Company During the Study Period

Variable	Financial Ratio	2022	2023	2024
X1	Net Income After Tax / Total Assets	-0.04	-0.01	-0.03
X2	Shareholders' Equity / Total Debt	2.06	1.94	1.74
X3	Current Assets / Current Liabilities	0.26	0.26	0.27
X4	Net Sales / Total Assets	0.04	0.04	0.03
X5	Cash / Total Assets	0.00	0.00	0.01
Z	KIDA Financial Failure Prediction Coefficient	0.69	0.66	0.56

Source: Prepared by the researcher based on the data in Tables (01), (02), and (03).

An analysis of the results shows that the Z coefficient is positive ($Z > 0$). Therefore, the company is considered safe from financial failure. However, the coefficient is steadily declining. The company should therefore seek appropriate measures to address its financial distress by improving its activities and increasing its turnover in order to avoid reaching the stage of financial failure.

This does not confirm the validity of the hypothesis stating that Al-Sharq Professional Equipment Company faces a risk of financial failure according to the KIDA model during the period 2022–2024.

4. Conclusion

Financial analysis is an essential tool for measuring performance within economic entities, as it contributes to providing a clear view of the financial position and to making strategic decisions based on accurate data. By examining financial equilibrium indicators, liquidity and profitability ratios, as well as predicting the risk of financial failure that the company may face during the study period using the KIDA model, economic entities can improve their efficiency and strengthen their competitiveness.

Performance measurement based on financial analysis methods is considered an ex-post control process involving a set of quantitative methods and techniques used by financial analysts to measure an entity's performance. It also helps the entity identify its strengths and weaknesses, detect deviations, and seek to address them. The following findings were reached:

- The company is experiencing financial distress and instability in its cash position, despite the relative stability of its fixed assets;
- There is an imbalance in the composition of shareholders' equity, due to the accumulated losses recorded by the company during 2022, 2023, and 2024;
- Financial and economic profitability have been fluctuating, which is attributable to the company's reliance on state subsidies;
- The company is temporarily safe from financial failure; however, it must work to improve its financial position in order to avoid the anticipated risk of financial failure, as indicated by the results of the financial analysis, which confirmed the company's critical financial position.

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Endnotes :

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