



Arab American University
Faculty of Graduate Studies

**The Role of Financial Analysis on Decision-Making and its
Predicting Power of Financial Distress Among Non-
Financial Companies Listed on the Palestine Exchange.**

By

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**This thesis was submitted in partial fulfillment of the
requirements for the Master's degree in Accounting and
Auditing**

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Thesis Approval

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This thesis was defended successfully on 26/02/2024 and approved by:

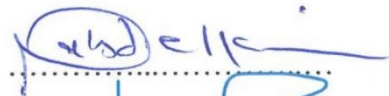
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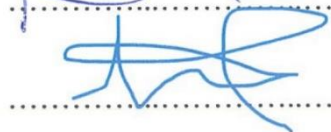
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Declaration

I certify that this thesis, which is submitted for the Master's degree in Accounting and Auditing, is the result of my research, except where otherwise acknowledged, and that this thesis (or any part therein) has not been submitted for a higher degree to any other university or institution.

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A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke at the end.

Date: 22/08/2024

Dedication

To the soul of my twin brother, may God have mercy on him,

I would like to extend my deep gratitude and appreciation to my mother, who nurtured me, guided me toward the right path, and prayed for me constantly, without her help, this thesis would not have been possible,

I would like to express my thankfulness to those who helped me, taught me the value of hard work, and played a significant role in bringing me to where I am today. Specifically, I am immensely thankful to my beloved father, to whom I always pray for a long life full of happiness absolute health,

To my dear brothers and sisters.

To my dear soulmate, my wife, who kept on helping and comforting me throughout the journey of writing this thesis

To my dear son and daughters.

To everyone who helped me throughout my study stages.

To the great martyrs, to all the wounded and prisoners, and to all who have sacrificed for Palestine.

Acknowledgment

In the name of Allah, the Compassionate, the Merciful

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Abstract

This study aims to examine the role of the financial analysis in decision-making and its power to predict financial distress among non-financial companies listed on the Palestine Stock Exchange. It scrutinizes the most significant financial techniques, tools, and methods used to observe their importance in decision-making and their power in predicting financial distress. To test the research hypotheses, the descriptive analytical methodology was used by designing a questionnaire that contained several dimensions to measure the importance of the financial analysis in the decision-making process. The questionnaire was distributed to general managers, financial managers, senior accountants, and financial analysts of (33) non-financial companies; 74 responses were received back from them. The results showed the existence of an important positive impact in using the analysis of financial ratios (liquidity, solvency, profitability, and activity) in the decision-making process. The analysis of the financial statements of the 33 listed non-financial companies was conducted between 2019 to 2022 to examine the power of predicting financial distress using the Altman Z Score Model and calculating financial ratios (liquidity, solvency, profitability, and activity). This process has resulted in 512 observations. The results showed that the financial ratios (liquidity, solvency, and activity) have a significant impact on the power of predicting financial distress in the Palestinian non-financial listed companies. However, there is no significant relationship between profitability indicators and financial distress. The necessary statistical analyses were conducted to test the hypotheses using the statistical analysis program SPSS and the statistical program (EViews) to apply all statistical and measurement methods.

Keywords: Financial analysis, Financial Ratios, Financial Distress, Decision-Making process

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Chapter One:

Introduction

1.1 General Background

In today's ever-changing corporate landscape, the capacity to make knowledgeable decisions is essential to guarantee the long-term success and sustainability of any company (Tricker, 2015). In this regard, financial analysis is a crucial process for making well-informed decisions and giving a real picture of companies' accurate financial status, strategic positioning, and operational efficiency (Penman, 2017).

The relationship between financial analysis and decision-making has received considerable attention from scholars in the field. As argued by Brigham and Houston (2018), comprehensive financial analysis empowers organizational leaders to assess performance metrics, evaluate risk exposure, and devise strategies that align with overarching corporate goals. Administrative decisions, ranging from resource allocation to strategic planning, are based on the insights derived from financial analysis, which in turn form the bedrock of informed managerial choices (Brealey, Myers, & Allen, 2017). Since it is considered as another critical facet of corporate decision-making, financing decisions, involve choices related to capital structure, debt issuance, and dividend policies. Extensive financial analysis aids in optimizing capital structures (Modigliani & Miller, 1958) and formulating financing strategies that balance risk and return considerations. Investment decisions, encompassing capital budgeting project selection, and financial analysis play a significant role in evaluating the potential risks and returns linked to different investment prospects (Ross, Westerfield, & Jordan, 2017).

Characterized by its inability to meet the financial obligations, financial distress is a critical juncture that demands proactive measures for recovery or mitigation. The

identification of early warning signs through financial analysis becomes instrumental in averting financial crises and facilitating timely corrective actions (Altman, 1968)

This research aims at bridging the gap in the existing literature by delving into the intricate relationships between financial analysis, (administrative, financing, and investment decisions), and their collective impact on the prediction of financial distress. Through a comprehensive examination of listed companies, this research aims to provide nuanced insights that can inform both practical decision-making processes and academic discourse frameworks.

1.2 Statement of the Problem

The decision-making process in economic institutions has become a necessity; meanwhile, it has become necessary for financial managers to analyze the financial statements that contain a large quantity of numbers that are collected daily in the accounting books. Therefore, they must study, analyze, and interpret these numbers so that they can know the real company's financial position and benefit from it in making necessary administrative and financial decisions, the degree of the company's continuity in the future, and the ability to predict the financial distress of the company. To this end, this is what the financial analysis seeks to reach.

Accordingly, this research will try to answer the following two main questions:

- 1- What is the importance and role of financial analysis in the various decision-making processes within Palestinian non-financial listed companies?
- 2- Do financial ratios affect the predicting ability of financial distress of the Palestinian non-financial listed companies?

1.3 Importance of Study

This research is important because it examines an important topic for the listed companies to demonstrate weakness and strength points and evaluate their performance. For those who make the decisions in these companies, this research would provide them with correct and accurate information and indicators before making various decisions and demonstrate the impact of financial analysis in predicting financial distress.

Most of the previous studies have investigated one topic: either the significance of financial analysis for making decisions or the impact of financial analysis in predicting financial distress. However, these studies did not carry out research in listed companies, such as private companies or banks, or even have studies of private companies, specific companies, (case study) or banks.

Therefore, this research is distinguished because it examines the role of financial analysis in various decision-making processes; in addition to its power to predict financial distress in listed companies. Moreover, this research aims at bridging the gap in the existing literature by delving into the intricate relationships between financial analysis, administration, financing, and investment decisions, and their collective impact on the prediction of financial distress.

1.4 Objectives of the Study

The main objective of this research is to demonstrate the role of analyzing financial statements as an effective means to the efficiency of the decisions that are taken. It investigates the main significant financial techniques, tools, and methods used to examine their importance in the decision-making process and the power of predicting financial distress.

The following sub-objectives are also sought to be investigated:

- 1- Ascertain the significance of financial analysis in assessing the companies and the mechanism by which it affects the process of decision-making.
- 2- Investigate the major financial ratios that influence the predicting power of financial distress.

1.5 Hypotheses Development

H1- There is a positive effect of using the analysis of financial ratios in the decision-making process.

The sub-hypotheses are:

H1-1 - There is a positive effect of using the analysis of liquidity ratio in decision-making.

H 1-2 - There is a positive effect of using the analysis of solvency ratio in the decision-making.

H 1-3 - There is a positive effect of using the analysis of profitability ratio in decision-making.

H 1-4 - There is a positive effect of using the analysis of activity ratio in decision-making.

H02 - There is no statistically important impact of ratios of financial analysis (liquidity, solvency, profitability, activity) on the predicting power of financial distress.

The Sub-Hypotheses are:

H0-2-1 There is no statistically important impact of the liquidity ratio on the predicting power of financial distress.

H0-2-1 There is no statistically important impact of the solvency ratio on the predicting power of financial distress.

H0-2-1 There is no statistically important impact of the profitability ratio on the predicting power of financial distress.

H0-2-1 There is no statistically important impact of the activity ratio on the predicting power of financial distress.

1.6 Definitions of Variables

1- The Independent Variable (IV): The tools used in financial analysis (financial ratios) (liquidity ratio, solvency ratio, profitability ratio, and activity ratio)

2- The Dependent Variable (DV): The process of making different decisions (Administrative decisions, financing decisions, and Investment decisions).

The Dependent Variable (DV): financial distress possibility

Chapter Two:

Conceptual Framework and Previous Studies

2-1 The Financial Analysis

Financial analysis is vital to assess performance and judge the efficiency of management. It helps investigate the financial position, capital structure, and the extent of the ability to continue. In addition, financial analysis provides management with tools for planning and control.

In the same context, financial analysis assists in the determination of the possibility of paying obligations and ensures certainty of the soundness of the financial position by evaluating liquidity.

2-1-1 Definition of Financial Analysis

Financial analysis is a systematic process aimed at evaluating and explaining the company's financial information to support informed decision-making; it is a crucial aspect of corporate management and investment strategies. Gibson H. C., (2017) mentioned the importance of this process in providing a real picture of a company's historical and current financial position. Through the investigation of financial statements, ratios, and other pertinent data, financial analysis not only gives the financial health of an organization but also assists in forecasting its future performance.

Financial analysis is the process of evaluating the financial health and performance of a company or investment opportunity. It involves examining financial statements, such as balance sheets, income statements, and cash flow statements, to assess various aspects like profitability, liquidity, solvency, and efficiency. This analysis aids stakeholders,

including investors, creditors, and managers, in making informed decisions regarding investments, lending, and overall business strategy (Penman, 2017).

Financial analysis includes several techniques and methods, including ratio analysis, trend analysis, comparative analysis, and benchmarking against industry standards. By interpreting financial data and identifying trends, analysts can measure the effectiveness of a company's operations, and its ability to generate profits, manage debts, and utilize assets efficiently (Fridson & Alvarez, 2015)

Alternatively, financial analysis can be defined as (a collection of data and information, which is shown in the financial statements, the list of business results, and the reports issued by the companies and related companies to reveal the strengths and weaknesses of companies' financial position. The financial analysis definition is the method that aims at creating a relationship, in the form of financial ratios or trends connected to the company's operation, investment, and financing activities (Al-Maghribi, 2022)

Through the previous definitions, financial analysis was defined from all its aspects as the process of exploring and deriving quantitative and qualitative indicators. It was also defined as a group of indicators and metrics that computed financial statements to clarify the information. Moreover, it can be described as the examination of the financial statements and published data for a past period. Others have defined it as a collection of information and data that helps to clarify the weaknesses and strengths of the financial position. Finally, it is a means of defining relationships and measures in the form of financial ratios.

2-1-2- The Significance of Financial Analysis

Financial analysis is very important for the following reasons:

- 1- Financial analysis is instrumental in evaluating the financial performance of a company's ratios, such as profitability margins, return on assets, and return on equity, which in turn provides a comprehensive understanding of how well a company manages its resources (Gibson, 2019).
- 2- Financial analysis aids in assessing the financial risk associated with an organization. By analyzing liquidity ratios, leverage ratios, and interest coverage ratios, stakeholders can assess the company's capacity to fulfill its short-term and long-term liabilities, thus informing risk management strategies (Palepu, Healy, & Bernard, 2016).
- 3- Financial analysis is a crucial tool for organizations to use when making strategic decisions. This includes resource allocation, investment decisions, and expansion strategies. Financial metrics give a basis for evaluating the possible effect of decisions on the company's overall financial standing (Ross et al., 2017).
- 4- Financial analysis is also useful in determining the price that must be paid in merger cases and acquisitions. It is also used to forecast a company's failure. As for the financial analysis process, it is useful in identifying the financing pattern during the past period, identifying the organization's profitability, its indebtedness, the level of liquidity, and measuring the efficiency of the use of funds within the organization through the analysis of various financial indicators. Furthermore, it is useful in comparing the organization's performance with average industry and historical performance through comparative analysis of financial results (Al-Maghrabi, 2022)

According to Al-Maghraby (2022), the significance of financial analysis for a company results from the fact that it helps in achieving the following purposes:

- 1- Understand the prevailing company's financial status.
- 2- Assess the company's capacity for borrowing and debt repayment.
- 3- Access the company's investment value and the viability of investing in its shares.
- 4- Judge the validity of the operational, financial, and sales policies and arrange them.
- 5- Benefit the decision-making process for internal control guidelines.
- 6- Evaluate the company management's suitability.
- 7- Clarify the general trend of the company's effectiveness.

2-1-3- Objectives of Financial Analysis

Financial analysis serves various objectives and provides insightful information about companies' financial accuracy and performance. The following are a few objectives of the common financial analysis:

- 1- It evaluates the company's capacity for making a profit and its overall financial performance (Brigham & Ehrhardt, 2016)
- 2- It determines the company's capacity to fulfill its immediate financial liabilities and saves its short-term liquidity position (Ross, Westerfield, & Jordan, 2017)
- 3- It evaluates the company's capability to fulfill its long-term financial liabilities and ensure its long-term financial stability (Brealey, Myers, & Allen, 2017)
- 4- It assesses the company's appropriateness in utilizing its assets and resources to make a profit (Gibson C. H., 2018)
- 5- It conducts a financial performance analysis of the company by comparing it with industry benchmarks and its competitors (Penman, 2017)
- 6- It uses historical data to make predictions about the company's future financial performance (Palepu, Healy, & Bernard, 2016)

- 7- It identifies and assesses financial risks that could impact the company's profitability and stability (Fraser & Ormiston, 2016)
- 8- It provides information to help investors make wise financial decisions (Graham, Dodd, Cottle, & Murray, 2018)
- 9- It evaluates actual financial performance against budgeted expectations (Horngrén, Sundem, Schatzberg, & Burgstahler, 2016)
- 10- Financial Health Monitoring: Financial ratios serve as early warning indicators of potential financial distress or operational inefficiencies. By monitoring changes in ratios over time, stakeholders can identify emerging trends or issues that may require attention, thus enabling proactive management and mitigation strategies. (Gibson, C. H. 2017)

Many conditions must be met when using financial ratios, and examples of these conditions are:

- 1- Pay attention to estimates of consumption reserves, doubtful debts, and subsidized debts in comparison periods, for they are estimates that do not depict the true reality.
- 2- The financial and accounting models used in comparison must be unified because their difference contributes to the difference in comparison.
- 3- Treating the numbers used in financial ratios based on creating a type of correlation among them which serves the goal of the analysis process.
- 4- Taking into account the temporal comparison to the prevailing economic conditions in each period, the analysis is complete.
- 5- The information selected for comparison and analysis must be essentially related to the problem to be investigated (Hosin, 1996)

2-1-4- Uses of Financial Analysis

Financial analysis is regarded as an effective method of understanding the nature of existing connections and relationships between elements of the company, its assets, liabilities, revenues, and expenses. Therefore, the financial analysis aims to raise questions and draw attention to sensitive points. So, the uses of financial analysis can be explained as follows:

1- Investment Decision Making:

According to Graham and Dodd (2018), Investors rely on financial analysis to assess the potential returns and risks associated with investment opportunities. By scrutinizing financial statements, ratios, and trends, investors can make informed decisions about buying, holding, or selling securities. Damodaran (2012) stated that this analysis helps investors identify undervalued assets and capitalize on profitable investment opportunities.

2- Lending and Credit Evaluation:

According to Saunders and Cornett (2014), financial institutions utilize financial analysis to evaluate the creditworthiness of borrowers before extending loans or credit facilities, Fabozzi and Peterson (2003). By analyzing financial statements and ratios, lenders assess the borrower's ability to repay the loan and manage financial obligations. This analysis ensures that loans are provided to creditworthy individuals and businesses, minimizing the risk of default.

3- Strategic Planning:

Companies employ financial analysis to formulate strategic plans and make informed decisions regarding expansion, diversification, or restructuring initiatives. By analyzing

financial data, management can identify areas of strength and weakness, assess performance against objectives, and allocate resources effectively. Financial analysis informs strategic choices to enhance competitiveness and profitability (Horngren, Datar, & Rajan, 2012).

4- Performance Evaluation:

Financial analysis facilitates the evaluation of a company's performance over time and comparison with industry peers or benchmarks. By analyzing financial ratios, trends, and key performance indicators, stakeholders can assess profitability, efficiency, and effectiveness in achieving financial goals. Performance evaluation through financial analysis supports decision-making and continuous improvement efforts (Brealey, Myers, & Allen, 2017)

2-1-5- Financial Analysis Standards

- 1- Historical standard: It depends on the period by extracting previous percentages for a particular element and comparing it with subsequent years or within a single year, as in horizontal and vertical analysis (Al-Katzi, 2015)
- 2- Stereotype standard: It is a ratio and equation known in financial analysis. It is issued by the Ministry of Industry and Trade that unites establishments and sectors under one framework or scope to measure liquidity and profitability with a standard of 2:1 or 1:1 and so on and measures the ratio to be compared. (Al-Katzi, 2015)
- 3- Industry standards: These are standards specific to a specific sector. They aim to measure the industrial sector under analysis with industries like the same industry to know the company's position with competing counterparts and the extent of progress or decline of the industry or company. (Al-Katzi, 2015)

2-1-6- Methods and Tools used in Financial Analysis

Financial analysis of accounting data is the means that enables the derivation of a set of financial indexes about the activities of companies that are the source of data. Financial analysis, regardless of its form, relies on the comparative approach; therefore, its methods vary according to the direction, nature, and field of comparison in the following ways:

1- Vertical Analysis:

Vertical analysis, also known as common-size analysis, is a financial analysis technique used to evaluate the relative proportion of individual items within a financial statement to a base amount. This method involves expressing each line item on a financial statement as a percentage of a key financial figure, typically total revenue for the income statement or total assets for the balance sheet. By expressing financial data in this manner, vertical analysis facilitates the comparison of the relative importance of different components within the same financial statement, aiding in the identification of trends, patterns, and anomalies (Gibson, C. H. 2017)

2- Horizontal Analysis:

Horizontal analysis, also known as trend analysis, is a financial analysis technique used to evaluate changes in financial data over multiple reporting periods. This method involves comparing financial data from consecutive periods, typically years or quarters, to identify trends, patterns, and changes in performance over time. Horizontal analysis allows analysts to assess the direction and magnitude of changes in key financial metrics, such as revenues, expenses, and net income, and to evaluate the company's growth or decline over time. (Gibson, C. H. 2017)

3- Financial Ratio Analysis:

Financial ratio analysis involves the evaluation of a company's financial performance and position through the calculation and interpretation of various ratios derived from its financial statements. These ratios provide insights into different aspects of a company's operations, profitability, liquidity, solvency, and efficiency, allowing stakeholders to assess its financial health and make informed decisions (Gibson, C. H. 2017)

1- Liquidity: The liquidity ratio evaluates the capability of a company to fulfill its immediate financial obligations with its readily convertible assets. This metric offers valuable insights into the company's correct financial position, short-term solvency, and capacity to cover immediate liabilities. There are two commonly used liquidity ratios: the quick ratio and the current ratio (Gitman & Zutter., 2019)

$$\text{Current Ratio} = \text{Current Assets} / \text{Current Liabilities}$$

The current ratio is a metric used to evaluate a company's ability to pay off its short-term obligations using its short-term assets. In this context, current assets refer to cash, accounts receivable, and inventory, while current liabilities include any financial liabilities that are due within a year, such as short-term debt and accounts payable (Gitman & Zutter., 2019)

$$\text{Quick Ratio (Acid-Test Ratio)} = (\text{Current Assets} - \text{Inventory}) / \text{Current Liabilities}$$

The quick ratio is a liquidity measure that is stricter than others, for it does not consider inventory, which cannot be easily converted to cash. By excluding inventory, this ratio offers a more cautious assessment of a company's capacity to fulfill its short-term financial liabilities (Brigham & Ehrhardt, 2016)

2- Profitability: The profitability ratios are a set of financial measures that evaluate a company's capacity to produce profits in comparison to its revenue, equity, assets, or

other financial indicators. These ratios provide insightful information about a company's overall financial performance and its efficiency in managing its resources.

In this discussion, the two frequently used profitability ratios are the return on equity and net profit margin (Gitman & Zutter., 2019)

$$\text{Net Profit Margin} = (\text{Net Profit} / \text{Revenue}) * 100$$

The net profit margin is a metric that determines the percentage of revenue that remains as net profit after accounting for all expenses, such as operating costs, taxes, and interest.

A higher net profit margin signifies superior profitability and effective cost-control techniques (Gitman & Zutter., 2019)

$$\text{Return on Equity (ROE)} = (\text{Net Income} / \text{Average Shareholders' Equity}) * 100$$

ROE is a metric used to measure the effectiveness of the company in utilizing its equity capital to make profits. It involves comparing the company's net income to the average shareholders' equity over a specific period. When the ROE is high, it indicates that the company is efficiently using shareholder funds to produce profits (Brigham & Ehrhardt, 2016)

3- Solvency: Companies use solvency ratios to determine their capacity to meet long-term liabilities and sustain their operations. Such ratios are financial metrics that offer insights into a company's financial risk and ability to manage debt. The debt-to-equity ratio is a commonly used solvency ratio (Gitman & Zutter., 2019)

Debt-to-Equity Ratio = Total Debt / Shareholders' Equity

The debt-to-equity ratio is a metric used to measure the amount of financing a company receives from debt as opposed to equity. This metric is an indicator of the level of financial leverage and risk a company faces. A lower ratio indexes lower financial risk, as it implies a lower dependence on debt financing. (Gitman & Zutter,, 2019)

The purpose of using financial ratios is to gain insights into various aspects of a company's financial performance and position. By calculating and analyzing these ratios derived from financial statements, stakeholders can assess key areas such as profitability, liquidity, solvency, and efficiency. Financial ratios provide a standardized means of evaluating financial data, allowing room for comparison across different companies, industries, and periods (Gibson, C. H. 2017)

4- Summary of Ratios:

Table (1): Summary of Ratios:

Ratio	Formula	Purpose or Use
Liquidity Ratios		
1. Current ratio	$\frac{\text{Current assets}}{\text{Current liabilities}}$	Measures short-term debt-paying ability.
2. Acid-test (quick) ratio	$\frac{\text{Cash} + \text{Short-term investments} + \text{Accounts receivable (net)}}{\text{Current liabilities}}$	Measures immediate short-term liquidity.
3. Accounts receivable turnover	$\frac{\text{Net credit sales}}{\text{Average net accounts receivable}}$	Measures liquidity of accounts receivable.
4. Inventory turnover	$\frac{\text{Cost of goods sold}}{\text{Average inventory}}$	Measures liquidity of inventory.
Profitability Ratios		
5. Profit margin	$\frac{\text{Net income}}{\text{Net sales}}$	Measures net income generated by each dollar of sales.
6. Asset turnover	$\frac{\text{Net sales}}{\text{Average total assets}}$	Measures how efficiently assets are used to generate sales.

Ratio	Formula	Purpose or Use
7. Return on assets	$\frac{\text{Net income}}{\text{Average total assets}}$	Measures overall profitability of assets.
8. Return on common stockholders' equity	$\frac{\text{Net income} - \text{Preferred dividends}}{\text{Average common stockholders' equity}}$	Measures profitability of owners' investment.
9. Earnings per share (EPS)	$\frac{\text{Net income} - \text{Preferred dividends}}{\text{Weighted-average common shares outstanding}}$	Measures net income earned on each share of common stock.
10. Price-earnings (P-E) ratio	$\frac{\text{Market price per share of stock}}{\text{Earnings per share}}$	Measures the ratio of the market price per share to earnings per share.
11. Payout ratio	$\frac{\text{Cash dividends}}{\text{Net income}}$	Measures percentage of earnings distributed in the form of cash dividends.
Solvency Ratios		
12. Debt to assets ratio	$\frac{\text{Debt}}{\text{Assets}}$	Measures the percentage of total assets provided by creditors.
13. Times interest earned	$\frac{\text{Income before income taxes and interest expense}}{\text{Interest expense}}$	Measures ability to meet interest payments as they come due.

Source: (Weygandt, Kimmel, & Kieso, 2013)

2-1-7- Requirement of Financial Analysis

Financial analysis is a multifaceted process that requires several key elements to ensure its effectiveness. These requirements encompass data accuracy, analytical tools, knowledge of accounting principles, and communication skills. The following lines present an outline of such requirements:

- 1- **Reliable Financial Data:** The foundation of financial analysis lies in accurate and consistent financial statements. Analysts rely on balance sheets, income statements, and cash flow statements to derive insights into a company's financial performance (Palepu et al., 2016).
- 2- **Appropriate Analytical Tools:** Financial ratios and metrics serve as vital tools in assessing various aspects of a company's financial health, such as profitability, liquidity, and solvency (Brigham & Houston, 2016).

- 3- **Understanding of Accounting Principles:** Proficiency in accounting principles, such as Generally Accepted Accounting Principles (GAAP) or International Financial Reporting Standards (IFRS), is essential for an accurate interpretation of financial statements (Gibson, 2017).
- 4- **Comparative Analysis:** Meaningful financial analysis often involves comparing a company's performance over time or against industry benchmarks. Ensuring data comparability facilitates accurate assessments (Palepu, Healy, & Peek, 2016).
- 5- **Forecasting Skills:** Analysts must possess the ability to forecast future financial performance based on historical data and market trends. Forecasting techniques aid in predicting potential outcomes and risks (Brigham & Houston, 2016).
- 6- **Risk Assessment:** Evaluating risks associated with investments or business operations is integral to financial analysis. Understanding factors, such as market volatility, credit risks, and regulatory changes enhance decision-making (Gibson, 2017)
- 7- **Qualitative Analysis:** Beyond quantitative data, qualitative factors, such as management quality, industry dynamics, and competitive positioning provide valuable context for financial analysis (Palepu, Healy, & Peek, 2016).
- 8- **Effective Communication:** Presenting findings and insights derived from financial analysis clearly and concisely is crucial for stakeholders' understanding and decision-making (Brigham & Houston, 2016).

2-2 The Decision-Making Process

Upon the outbreak of the Industrial Revolution, public shareholder companies started to appear to meet the needs of financing large projects. They have been developing with the progress and development of industries and inventions. In addition, they have entered the

field of investment in the areas of service, industrial, and commercial activities because of their ability to attract money from increasing numbers of people. These companies are distinguished by their capital which is divided into equal shares. It is worth mentioning that public shareholder companies have a legal personality that is completely independent of their owners, and their shares are available for public subscription (Al-Haris, 2004)

2-2-1- The Concept of Decision-Making

Recently, the concept of decision-making has evolved significantly, particularly with the advancement of technology and changes in organizational structures. Decision-making encompasses the process of selecting a course of action from multiple alternatives to achieve a desired outcome or solve a problem. Several key themes and approaches have emerged in decision-making research and practice, and they are as follows:

- 1- **Data-Driven Decision-Making:** With the proliferation of big data and analytics technologies, organizations have increasingly turned to data-driven decision-making. This approach involves leveraging large volumes of data to inform and guide decisions, often by using advanced analytics techniques, such as machine learning and predictive modeling (Chen & Zhang, 2018).
- 2- **Decision Support Systems (DSS):** Decision support systems have become more sophisticated and integrated into organizational processes. These systems provide decision-makers with tools and information to analyze complex situations and make informed choices. Moreover, advances in artificial intelligence and natural language processing have enhanced the capabilities of DSS in recent years (Power, 2017).
- 3- **Behavioral Economics in Decision-Making:** Behavioral economics has gained prominence in understanding the mechanism through which individuals make

decisions. Research in this field has highlighted the role of cognitive biases, emotions, and social influences in shaping decision-making processes. Insights from behavioral economics have been applied to various domains, including finance, marketing, and public policy (Thaler & Sunstein, 2008).

- 4- Decision-Making in Complex Systems: In an increasingly interconnected and complex world, decision-making often involves navigating uncertainty and managing interdependencies. Systems thinking approaches, such as scenario planning and network analysis, have emerged as valuable tools for understanding complexity and making robust decisions in dynamic environments (Sterman, 2016).
- 5- Ethical Decision-Making: Ethical considerations have become more central in decision-making discussions, driven in part by high-profile scandals and growing public awareness of corporate social responsibility. Organizations are placing greater emphasis on ethical frameworks and values-based decision-making processes to ensure responsible conduct (Johnson, 2019)
- 6- Collaborative Decision-Making: Collaboration has become essential in decision-making processes, particularly in distributed and virtual work environments. Technologies, such as video conferencing, collaborative software, and virtual reality, enable teams to work together effectively regardless of geographical location. Effective collaboration requires clear communication, shared goals, and mutual trust among team members (Cramton et al., 2016).

.2-2-2 Types of the Decision-Making Process

Decisions are categorized based on several factors, such as:

- A- The degree of availability of information

Certainly, decision-making processes can be categorized based on the degree of availability of information. The following lines explain these different types:

- 1- **Structured Decision Making:** Structured decision-making occurs when all relevant information is available, and the decision-making process follows a clear, predetermined set of steps or criteria. This type of decision-making is systematic and well-defined, which often results in consistent outcomes (Hauser & Katz, 2017).
- 2- **Semi-structured Decision Making:** Semi-structured decision-making involves situations where some information is available, but certain aspects of the decision remain ambiguous or uncertain. Decision-makers must use judgment and discretion to fill in gaps and make informed choices (Maier et al., 2016).
- 3- **Unstructured Decision Making:** Unstructured decision-making occurs when information is scarce, incomplete, or ambiguous, a matter that makes it a challenging task to follow a predefined decision-making process. Decision-makers must rely heavily on intuition, creativity, and judgment to navigate uncertainty (Cohen et al., 2019).

B – The legal classification of decisions

Decisions can also be classified legally based on the legal framework within which they operate. The following lines explain these different types:

- 1- **Administrative Decision Making:** Administrative decision-making refers to decisions made by administrative agencies or government bodies. These decisions are often based on regulations, laws, and policies established by legislative bodies and are subject to administrative law (Funk et al., 2016).
- 2- **Judicial Decision Making:** Judicial decision-making occurs within the legal system and involves judges or courts interpreting laws, statutes, and precedents to resolve

disputes and render judgments. Judicial decisions set legal precedents and establish case law (Clermont & Schwab, 2016).

- 3- Legislative Decision Making: Legislative decision-making occurs within legislative bodies, such as parliaments or congresses. Legislators debate, negotiate, and vote on proposed laws, statutes, and regulations, shaping the legal framework within which decisions are made (Fenno, 2017).

C- In line with the decision-making formality classification

1- Programmed and Non-programmed Decision-making:

A- Programmed decisions are those that are routine and repetitive, and often governed by established procedures or rules. They are typically made in response to recurring situations.

B- Non-programmed decisions are unique and unstructured and require creativity and judgment. They are made in response to novel or complex situations without pre-existing solutions (Miecznik & Matusiak, 2016)

2- Individual and Group Decision-Making:

A- Individual decision-making involves a single person making the decision, which can be quicker, but may lack diverse perspectives.

B- Group decision-making involves multiple individuals contributing to the decision-making process, allowing for a broader range of insights, but potentially requiring more time and consensus-building. (Barry & Stewart, 2019).

3- Structured and Unstructured Decision-making:

A- Structured decisions are based on clear criteria and objectives, with predefined steps for concluding.

B- Unstructured decisions lack clear criteria or objectives and often require creativity and intuition to navigate through ambiguity (Subramaniam & Nilakant, 2016)

The classification of decisions according to the level at which they are made is as follows

- 1- Strategic decisions: These decisions are made at the highest level of an organization and have a long-term impact on its overall direction and objectives. Strategic decisions typically involve major commitments of resources, and they guide the organization's mission, vision, and goals. Examples include decisions related to market expansion, mergers and acquisitions, diversification, and major investments in technology or infrastructure (Grant, 2019)
- 2- Administrative decisions: These are the functional decisions taken to attain optimal performance of the organization's functional activities, including marketing, production, finance, and other areas, at the middle management level (Burhan, 1995)
- 3- Operational decisions: These decisions are made at the lowest level of the organization and are concerned with day-to-day activities and processes. These decisions are routine and repetitive, aimed at ensuring the efficient functioning of the organization's various departments or units. Examples include decisions related to staffing, production processes, customer service, and routine maintenance tasks (Slack, Brandon-Jones, & Johnston, 2019)
- 4- Tactical Decisions that fill the void between operational and strategic decisions, which often address the mechanism of implementing strategic plans (Wheelen, Hunger, Hoffman, & Bamford, 2017)
- 5- Routine Decisions: Regular and repetitive decisions that have well-defined procedures (Robbins, Coulter, & DeCenzo, 2017)

2-2-3- The Significance of the Decision-Making Process

The decision-making process holds significant importance for individuals, organizations, and society. The following lines present the reasons for their significance:

- 1- **Achieving Goals and Objectives:** Decision-making is essential for setting and achieving goals and objectives. By making informed choices, individuals and organizations can direct their efforts toward desired outcomes and maximize their chances of success (Schwartz et al., 2015).
- 2- **Problem Solving and Innovation:** Decision-making involves identifying problems, generating solutions, and selecting the best course of action. Through this process, individuals and organizations can overcome challenges, foster innovation, and adapt to changing circumstances (Levinthal & Rerup, 2016).
- 3- **Optimizing Resource Allocation:** Effective decision-making enables the optimal allocation of resources, including financial, human, and material resources. By allocating resources strategically, organizations can maximize efficiency, minimize waste, and enhance performance (Teece, 2018).
- 4- **Enhancing Performance and Competitiveness:** Sound decision-making contributes to organizational performance and competitiveness. By making timely and well-informed decisions, organizations can gain a competitive edge, improve market positioning, and achieve sustainable growth (Hitt et al., 2017).
- 5- **Managing Risk and Uncertainty:** Decision-making helps individuals and organizations navigate risk and uncertainty. By assessing potential risks, considering alternative scenarios, and implementing risk mitigation strategies, decision-makers

can minimize negative consequences and seize various opportunities (Lovallo & Sibony, 2016).

- 6- **Facilitating Learning and Development:** The decision-making process fosters learning and development at both individual and organizational levels. Through a reflection on past decisions, feedback from outcomes, and continuous improvement, individuals and organizations can enhance their decision-making capabilities (Davenport et al., 2017).
- 7- **Promoting Ethical Behavior and Social Responsibility:** Ethical decision-making is integral to fostering trust, integrity, and social responsibility. By considering ethical principles and values in decision-making, individuals and organizations can uphold moral standards, build a reputation, and contribute to the greater good (Moon et al., 2015).
- 8- **Empowering Stakeholders and Building Trust:** Involving stakeholders in the decision-making process fosters transparency, accountability, and trust. By engaging stakeholders, soliciting input, and incorporating diverse perspectives, decision-makers can build consensus, enhance buy-in, and strengthen relationships (Freeman et al., 2010).

Therefore, the importance of decisions increases, especially in companies and organizations. Large companies always need to make decisions, and the importance of these decisions depends on the degree of information provided to the company's administration through the analysis of financial statements. Therefore, the process of analysis must be correct, accurate, and objective this gives decisions strength, clarity, and completeness.

2-2-4- Characteristics of Decision-Making Process

The process of making decisions is characterized by several key features, which include:

- 1- **Rationality:** Decision-making is often assumed to be a rational process, where individuals seek to maximize their outcomes by carefully weighing the available alternatives and selecting the best course of action based on their preferences and objectives. However, decision-making may also be influenced by biases, emotions, and heuristics (Smith, 2020).
- 2- **Information Gathering:** Decision-makers gather relevant information to understand the problem or opportunities they are facing, identify possible alternatives, and evaluate the potential outcomes of each alternative. Information gathering may involve collecting data, conducting research, seeking advice from experts, and consulting relevant stakeholders (Jones & Brown, 2018)
- 3- **Evaluation of Alternatives:** Decision-makers assess the pros and cons of different alternatives based on criteria, such as feasibility, effectiveness, efficiency, and alignment with the organizational goals. This evaluation process may involve analyzing quantitative data, conducting qualitative assessments, and considering subjective preferences (Garcia et al., 2019).
- 4- **Risk and Uncertainty:** Decision-making often involves dealing with risk and uncertainty, for the outcomes of decisions may be influenced by factors that are beyond the decision-maker's control or not fully known. Decision-makers must assess the level of risk associated with each alternative and consider strategies for managing uncertainty, such as scenario planning or risk mitigation measures. (Brown, 2017).

- 5- Trade-offs: Decision-making requires trade-offs, as individuals must allocate limited resources, such as time, money, and manpower, among competing alternatives. Decision-makers must consider the opportunity costs of their choices and prioritize objectives to achieve the best possible outcome taking into consideration the constraints they face (Taylor et al., 2016).
- 6- Decision Implementation: Once a decision is made, it must be effectively implemented to achieve the desired outcomes. This may involve communicating the decision to relevant stakeholders, allocating resources, assigning responsibilities, and monitoring progress towards implementation goals (Johnson & Garcia, 2021)
- 7- Feedback and Adaptation: Decision-making is an iterative process that may require adjustments based on feedback and new information. Decision-makers should continuously monitor the outcomes of their decisions, evaluate their effectiveness, and make adaptations as necessary to achieve desired results (Brown et al., 2019).

2-2-5- Stages of the Decision-Making Process

Making decisions is an ongoing and daily process that includes all stages of administration, starting with planning, passing through organization and direction, and ending with control. Since planning cannot occur without decision-making, whether it be short- or long-term, we make several decisions automatically and the process would be limited only to the general manager or other managers only in contrary to the requirements that necessitate taking into consideration all levels.

The decision-making process takes place to tackle current issues, confront situations, and confirm potential occurrences to achieve goals.

The phases involved in making decisions can be summarized in the following figure:

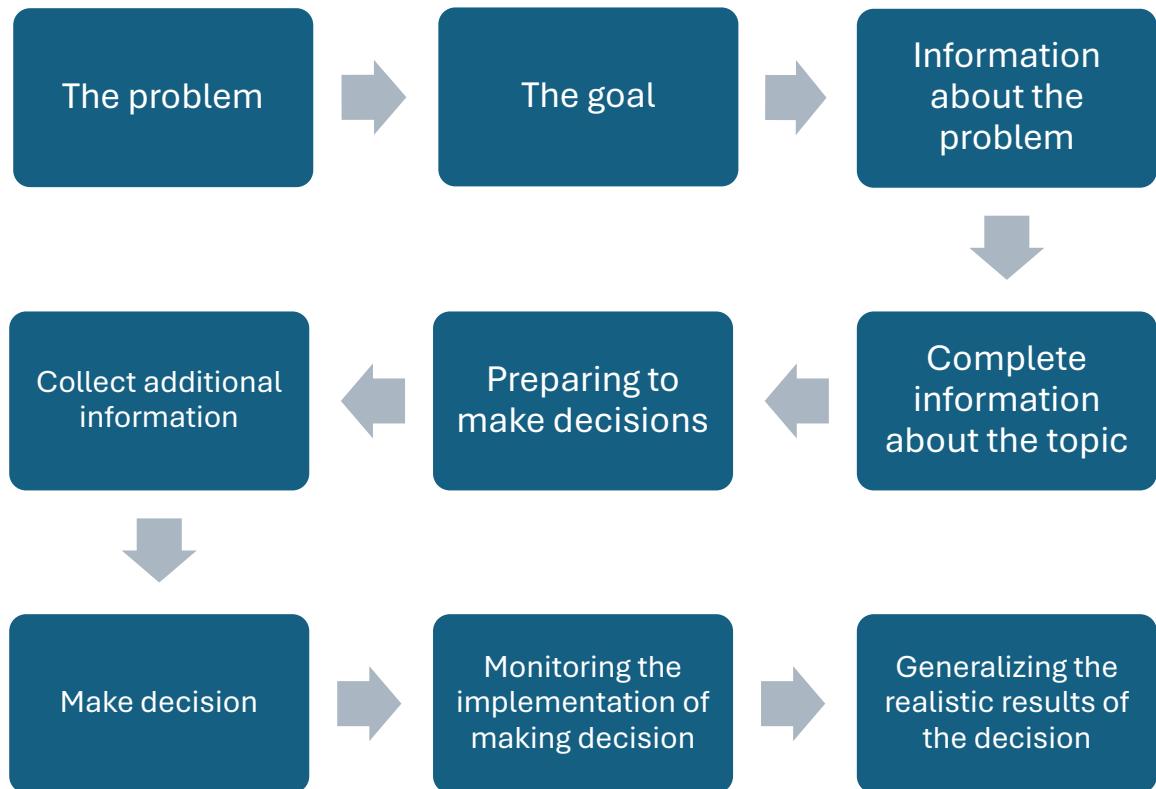


Figure No (1): A Chart of the Decision-Making Process: (Musharrafii,, 1997)

In light of environmental considerations and the organization's resources, selecting one option from a range of viable options to accomplish a goal or set of goals within a given time frame is known as the decision-making process.

2-3 The Financial Distress:

Financial distress is a critical concept in the realm of corporate finance and business management, for it signals a state of economic instability and vulnerability that may encounter companies. It represents a scenario where a company faces significant challenges in meeting its financial obligations, thereby jeopardizing its operational viability and long-term sustainability. Understanding financial distress is paramount for stakeholders, including investors, creditors, managers, and regulators, as it provides crucial insights into the health and resilience of businesses.

Financial distress can stem from a multitude of internal and external factors, such as poor financial management, economic downturns, industry disruptions, competitive pressures, or unexpected events. Regardless of the underlying causes, the implications of financial distress are far-reaching, which affects not only the company's stakeholders, but also its employees, suppliers, customers, and the broader economy (Altman, 2013)

2-3-1 The Concept of Financial Distress

The concept of financial distress refers to a situation where a company experiences significant financial challenges or difficulties that threaten its ability to meet its financial obligations. Financial distress can arise from various factors, including declining revenues, increasing costs, excessive debt, liquidity problems, or poor management decisions.

In financial distress, a company may struggle to generate sufficient cash flow to cover its operating expenses, debt payments, or other financial commitments. This can lead to a deterioration of the company's financial health, credit rating, and ultimately, its ability to remain solvent and continue operating as a going concern (Altman, 2013)

A set of definitions related to financial distress can be given as follows:

Ahmad (2013) defined financial distress as a “process and a condition.” Since it is a “process, it is not the result of the moment but results from many reasons that interact over periods that are longer or shorter and lead to a state in which the institution is unable to pay its obligations and get new commitments.” Jahida, (2005) defined it as a discrepancy faced by an organization because of a lack of resources and capacities and failure to fulfill its short-term liabilities. It is also known by Al-Omrani & Al-Qattan, (2013) as the institution’s encounter with “unexpected” emergency circumstances that

lead to the failure of its ability to generate an economic return or surplus activity sufficient to pay its liabilities in the short term. Beaver believes that the criterion for failure in an institution is its declaration of bankruptcy or inability to pay its debts.

The Forms of Financial Distress can be Distinguished as follows:

- 1- **Insolvency Risk:** This refers to the risk in which a company may become insolvent and unable to meet its due debt obligations. Insolvency risk is a crucial concern for creditors and investors as it indicates potential bankruptcy or default (Minton et al., 2018)
- 2- **Market Risk:** This encompasses the risk of financial loss due to adverse movements in financial markets, including fluctuations in interest rates, exchange rates, commodity prices, and equity prices. Market risk can expose companies to significant volatility and pose challenges to their financial stability (Bams et al., 2016)

2-3-2- Causes of Financial Distress:

The main causes of the financial distress are:

- 1- **Economic Downturns:** Economic recessions or downturns can significantly impact businesses, reducing consumer spending, decreasing demand for goods and services, and tighter credit conditions (Yilmaz & Ucar, 2018)
- 2- **Industry-Specific Factors:** Certain industries may be more susceptible to financial distress due to factors, such as technological disruptions, regulatory changes, or shifts in consumer preferences (Lee et al., 2017)
- 3- **Financial Leverage:** High levels of debt or financial leverage can amplify the impact of adverse events on a company's financial health and may increase the likelihood of financial distress. (Guedhami, Pittman, & Saffar, 2016)

- 4- Management Decisions and Governance: Poor management decisions, ineffective corporate governance practices, or conflicts of interest can contribute to financial distress and lead to operational inefficiencies, strategic missteps, or ethical lapses (Chen et al., 2019)

2-3-3- Stages of Financial Distress:

The stages of financial distress can be explained as follows:

- 1- Early Warning Signs: Financial distress often begins with early warning signs, such as declining profitability, deteriorating cash flow, or increasing leverage ratios. These indicators may not immediately threaten the viability of the business but serve as signals of underlying problems (Altman et al.,2015)
- 2- Moderate Financial Distress: As financial problems persist and intensify, companies may enter a stage of moderate financial distress characterized by liquidity challenges, missed debt payments, or asset impairments (Chen et al., 2019)
- 3- Severe Financial Crisis: Without timely intervention or corrective actions, companies in moderate financial distress may progress to a severe financial crisis, marked by insolvency, bankruptcy, or restructuring (Ismail et al., 2018)

2-3-4- Types of Financial Prediction

- 1- Long-term financial predicting: This type is designed for the company's general needs, from assets; long-term loans are obtained at intermittent intervals and in large quantities. In addition, the cost of one dollar in this issue decreases with the increase in the size of one issue (issue one may be shares or years). For this reason, it is usually preferable to obtain funds for the fewer issues required. Generally speaking, for these

reasons, it is significant for the organization to accurately predict its overall financial requirements for a specific number of years in the future (Al-Hinnawi & Ismail, 1999)

- 2- Short-term financial predicting: This type emphasizes the discretionary cash budget, which is a part of the system within the company. It helps the financial planning, control, and sales process at the basic starting point of the forecasting process (Al-Hinnawi & Ismail, 1999)
- 3- Dynamic (effective) predicting: This type mainly takes into account economic, social, and political factors, which may affect the volume of sales, the cost of sales, and the effects as a result of activity in the coming period (Al-Hinnawi & Ismail, 1999)
- 4- Static financial predicting: This type assumes that the relationship between the elements of financial outcomes will remain unchanged from one period to another, which means that the investor will have some degree of relationship between profits and sales that will remain the same. During a specific time, series, for this purpose, the investor predicts profits during a period. Moreover, the upcoming financial statements are based on historical data over several years using the risk equation of the straight line, correlation, and regression relationships between the previous elements (Al-Hinnawi & Ismail, 1999)
- 5- Prediction of company's management knowledge: This type of forecasting is often done for internal purposes by analyzing break-evens and budgets, and planning. Through honest control of the available budget and long-term planning, as well as management, the company sometimes makes predictions for external purposes using

data on the profits expected to be achieved during the next period and per-share earnings. (Al-Hinnawi & Ismail, 1999)

- 6- Predicting based on financial analysts' knowledge: This type of prediction is based on a contract between investors, creditors, and other beneficiaries' financial analysts to honestly perform the financial analysis of the organization where they wish to invest or to grant credit: This type of information may be published through financial newspapers considering certain standards for financial analyst. (Al-Hinnawi & Ismail, 1999)

2-3-5- Predicting Financial Distress

Researchers have worked strenuously to develop financial analysis and use it as a tool for evaluating the probability of financial failure. Later, efforts were directed toward designing specter models to predict the probability of corporate failure. It is worth mentioning that scientific research relied on integrating traditional financial analysis with the reasons. The statistics have different trends in their structure and content, some of which depend on financial standards; others use specific criteria, such as the effectiveness of the organization and the size of the company. It is important to carry out the assessment procedure for the financial performance of the company or institution through which it is possible to recognize workflow, which helps in the process of forecasting financial distress in the organization (Al-Maghribi, 2022)

2-3-6- Financial Distress Predicting Methods:

According to Al-Maghribi, (2022), the financial predicting methods are:

1- Fixed Ratio Method:

The fixed ratio method is the simplest method used in preparing financial forecasts. The success of this approach relies heavily on the strength of the connection between the sales number that represents the company business, the various circumstances, some liabilities, and other costs. This is required and necessitates the existence of several main steps, including preparing the expected income statement and the expected balance sheet.

2- Method of Equating Expected Percentages of Sales:

The method of equating percentages of sales is one of the specialized methods that are used to forecast the organization's financial needs for the coming period. This method is generally adopted relatively, for there is a powerful and direct relationship between most elements of the balance sheet and the sales.

3- Method of Percentages of Sales:

This method is considered the simplest method in financial distress forecasting. Through this method, the company's financial needs are expressed based on percentages from sales derived from each item of the balance sheet, coming up with a sales report that is usually the responsibility of marketing people. Ultimately, the sales estimate is one of the data that is used in estimating the forecast of necessary conditions.

4- Regression Analysis Method in Financial Forecasting:

This method is an alternative to the method of percentages of sales used in estimating financial needs; sometimes it is called the scatterplot or scatter map method.

5- Method of Determining Multiple Regression:

This method is considered the most advanced method of regression analysis. In the first method, it is assumed sales are a function of only one variable, while the second assumes that sales depend on several variables. For example, under the regression method, we can say that sales are a function of total national income.

2-3-7- Traditional Models

Traditional models of predicting financial distress focus on identifying signals and indicators that suggest a company is at risk of experiencing financial difficulties. Here are a few traditional models commonly used for predicting financial distress, along with their references:

1- Altman Model:

Definition: Developed by Edward Altman, the Z-Score Model is a commonly employed technique for forecasting corporate insolvency. It amalgamates various financial ratios to produce a score, which classifies companies into different zones indicating their risk of financial distress. This model is expressed in the mathematical form as follows.

$$Z = 1.2x_1 + 1.4x_2 + 3.3x_3 + 0.6x_4 + 0.99x_5$$

Z = value of the financial distress index. X1 = (working capital / total assets) X2 = (profits or losses / total assets). X3 = Net profits before tax / Total assets). X4 = (market value equity / total liabilities). X5 = (Sales / Total Assets) (Altman, 1968)

If Z is greater than 3, then the company is safe; if Z is less than 1.8, then there would be a chance of financial failure.

If it is between 1.8 and 3, two cases are likely to occur.

1- The propensity for financial failure falls between the following ranges of 1.8 to 2.5

2- The propensity for financial success falls between the following ranges of 2.5 to 3
Therefore, the beginning of the company's safety point is at Z (2.5) (Altman, 1968)

2- Kiddy Model:

This model is built on five main high ratios, and its mathematical form takes the following form:

$$Z = 1.042 X_1 - 0.42 X_2 + 0.461 X_3 + 0.463 X_4 + 0.271 X_5$$

whereas: Z = value of the financial distress index

X₁ = Net profit after tax = Profitability ratio of total assets. X₂ = Total shareholders' equity = Total liabilities payment ratio .X₃ = Liquid Assets = Liquidity Ratio of Current Liabilities .X₄ = Sales = Activity Ratio of Total Assets. X₅ = Cash = Asset Ratio Total Assets

The probability of distress is considered high according to this model when (Z) is negative. This model has proven a predictive ability of bankruptcy incidents of 95% one year before the bankruptcy incident occurs (Matar, 2004)

3- Ohlson O-Score Model:

Definition: The O-Score model, proposed by James Ohlson, is another bankruptcy prediction model. It utilizes financial statements' information to assign a score, with a lower score indicating a higher likelihood of financial failure (Ohlson, 1980)

2-4 The Concept of the Public Limited Shareholding

In Palestine, the public limited shareholding company is known as “the company that consists of its capital which is tradable and is offered for public subscription. The liability of its shareholders is limited to the amount each of them contributes to the company’s capital (Palestinian Central Bureau of Statistics, 2017)

2-5 Previous Studies

Given the research that addressed the topic of financial analysis and its impact on decision-making and its impact on forecasting financial distress, this section addresses previous studies that are used to develop the study hypotheses.

The Effect of Financial Statements' Analysis on Investment Decision:

Ahmed (2021) investigated the role of financial analysis using data from the published financial statements of the listed companies in the Khartoum Stock Exchange and relied on financial analysis in analyzing and evaluating non-financial and financial information to make decisions to buy, sell, or keep securities and reach a sound investment decision in the Khartoum Stock Exchange. He found that adopting modern financial analysis methods provides information that helps rationalize investment decisions.

However, Olayinka (2022) aims to explore the potential use of Financial Statement Analysis (FSA) and its explanation by firms to assist with funding and investment decisions. The study also sought to identify how FSA can help companies avoid low profitability and investment returns. She concluded that FS analysis is enough for making effective decisions, that companies should utilize FSA carefully to fully equip themselves with this tool, and that different ratios must be employed when examining a company's financial performance. FSA should be used appropriately in other areas of making decisions as well as investment.

Conteh & Akuntansi (2021) conducted a study on financial statement analysis and investment-making decisions in the Gambia and specifically focused on Trust Bank Gambia Limited. The objectives of the research were to assess the role of financial

statement analysis in aiding potential investors in investment decision-making, to evaluate a company's performance for investment decisions, and to appraise the fundamental use of financial statement analysis information. They found that financial statement analysis has a crucial role in investment decisions, so participants demonstrated a good understanding of financial variables, particularly profitability ratios and liquidity ratios.

These studies were similar in results and concluded that financial analysis is sufficient, for it provides financial information that helps rationalize and effectively make investment decisions.

The Effect of Financial Statements Analysis on Financing Decisions

Saleh, Alkasasbeh, and Bader (2017) illustrate how financial analysis tools are used in the Jordanian commercial and Islamic banks operating in the Aqaba Special Economic Zone at the time of deciding whether to offer loans to their customers. They concluded that when these banks receive customer requests and sort them for credit approval; their bank credit departments use financial analysis tools and techniques.

Al-Hallow (2016) aimed to show the reliance on which financial indicators are used in financing decision-making of Palestinian Islamic Banks". This was conducted by identifying the importance of financial analysis using financial indicators, which would give relevant information on financing decision-making necessary in this regard, to participate in the development of Islamic banking performance avoid the risks of financial hardship, and contribute to the development of banking performance by opening new branches towards expanding its local and international scope. He came out with several results, including the importance of interest among Islamic banks in the analysis of profitability ratios for the creditors requesting financing, especially regarding the

operating profit, ROI, and components of normal and abnormal profit. However, it was shown that there is an interest restricted in applying a few financial ratios that are of significance when decisions making a grant, such as liquidity ratio, financial leverage ratio, debtors' turnover ratio, and turnover inventory index.

According to Habib (2021), the role analysis of the financial statements was shown as an effective means to judge the efficiency of credit and investment decisions in Sudanese banks by applying it to the Omdurman National Bank. It was conducted by highlighting the concept of horizontal and vertical financial analysis and showing the most significant financial indicators in the accuracy of deciding on investments and credit in banks by analyzing the financial position statement data from the period 2015 to 2019. He concluded the existence of a direct relationship between financial analysis and the efficiency of making investments and credit decisions in the bank.

Similarly, Reda, et. al., (2017) investigated the methods of strategic decisions, particularly financial decisions which have a direct impact on economic institutions. This was carried out by endowing them with significant weight and a useful role in the economy, the financial statements, and their diagnosis to derive the appropriate decision. They came out with several actions, the most significant of which was paying attention to the evaluation and the financial analysis of the different positions, particularly investing.

These studies were similar in results and concluded the importance of analyzing and approving banks in using financial tools and ratios. It is worth mentioning that profitability and liquidity ratios are the most important ratios used, and they are important in financing making decisions.

The Impact of Financial Statements Analysis on Administrative (Financial) Decisions

Mayaleh, (2017) investigated the use of financial analysis as a technique for analysis and diagnosis of the institution's financial standing, highlighting that decision-makers in the business must understand the part that financial analysis plays in making critical choices. He concluded that a wealth of information is provided by the financial analysis to help reveal the company's financial situation and understand its weaknesses and strengths. The research concluded that focus should be given to the results of the financial analysis because it provides accurate information about the financial position.

Maarouf's (2021) identified the role of financial analysis in decision-making to reach the goals of the study and answer its questions. He depended on gathering data about financial analysis and its most used tools in the process of making decisions. He used the analytical descriptive approach, and a case study was applied at the level of the National Electricity and Gas Distribution Corporation - Sonelgaz - Umm El-Bouaghi unit. He concluded that financial analysis has the most impact on financial decision-making, as it is deemed to be the most important pillar for decision-making, through a statement of the financial position of the company by identifying strengths to enhance it and weaknesses to avoid it.

Elyas (2015) concluded that financial analysis is considered an important making decisions tool, as it assists the manager in understanding the company's financial position and reveals the circumstances surrounding it. Moreover, financial analysis assists a manager in carrying out his duties in good conditions; consequently, there must be methods that help him in financial decision-making. The results showed that financial analysis is an important tool for making decisions, as it assists the manager in

understanding the financial position of the institution and reveals the circumstances surrounding it. In addition, financial analysis assists in recognizing the strengths and weaknesses so that the financial manager can carry out the duties in good conditions. Finally, it should be noted that there must be methods that help him in decision-making, including financial indicators.

These studies were similar in the fact that auditing is important and provides information that helps reveal the company's financial position. It is also a significant tool that has the greatest impact on the decision-making process.

The Role of Financial Analysis in predicting Financial Distress

Rachmawati & Maulana, (2022) aimed at forecasting the financial hardships of airline firms, which are determined by the ratio of investment, activity, profitability, solvency, and liquidity. This research utilized a quantitative method for inferential research. The data for this research came from the financial statements of airline firms that were listed between 2018 and 2021 on the Indonesia Stock Exchange. The result showed that the Springate model's measure of financial distress prediction was partially unaffected by the solvency ratio (debt to equity ratio), liquidity ratio (current ratio), profitability (return on assets), the ratios of activity (total assets turnover), and investment (price-earnings). They all partially contribute to the forecasting of the financial crisis. In predicting financial trouble, the profitability ratio has an 81% effect, the activity ratio has a 27.8% influence, and the investment ratio has a 7.6% influence.

Lumbantobing (2019) verified how financial ratios affected the likelihood of financial falter in the manufacturing enterprises listed on the Indonesia Stock Exchange. The research examined the relationship between financial ratios and financial distress from 2015 to 2017 by employing a sample of 30 emitters with 90 units of analysis. The findings

showed that the likelihood of financial trouble is not much impacted by activity ratios. Financial distress is considerably less likely when liquidity levels are high. Moreover, the likelihood of financial trouble is strongly positively impacted by both debt and earnings ratios. According to the research, the best criteria to employ in predicting financial hardship, are debt and liquidity ratios. Additionally, the analysis suggested that profits financial statements should include ratios related to liquidity so that customers can make educated judgments in the event of financial difficulty.

Sibarani, Irawati, & and Muda (2021) used Debt to Equity Ratio (DER) Current Liabilities to Assets Ratio (CLAR), Current ratio (CR), Return on Equity (ROE), Debt to Asset Ratio (DAR), Return on Asset (ROA), to predict the degree of financial falter condition and to determine the relationship significance. Plantation subsector enterprises listed on the Indonesia Stock Exchange comprised the study population. The researchers employed Purposive sampling to select ten companies for the sample. Secondary data from the annual financial reports of plantation subsector listed companies on the Indonesia Stock Exchange was used in this study. Logistic regression was used to assess the data and determine how these variables affected one another. They found that the current ratio (CR), return on equity (ROE), debt-to-asset ratio (DAR), and financial distress are highly influenced by the Current Liabilities to Assets Ratio (CLAR), and Return on Asset (ROA) but not by Debt-to-Equity Ratio (DER) or Return on Assets (ROA).

Utami, Atmaja, and Hirawati (2021) investigated the effect of leverage, profitability, and liquidity on the financial crisis. The research focused on businesses in the basic industry, chemical, and agricultural sectors. The results demonstrated the important relationship between profitability and liquidity and the state of financial hardship in the chemical,

basic industries, and agricultural sectors. Leverage plays a great part in the state of financial hardship in the chemical and basic industries.

These studies have been similar in that liquidity and profitability ratios have a positive effect on financial falter, activity ratios do not affect financial falter, and debt ratios have a negative effect.

Commentary on previous Studies

Regarding the previous studies related to the importance of financial analysis and its role in the decision-making process, the results of these studies showed the importance and efficiency of financial analysis in rationalizing decisions and that financial analysis is sufficient and effective in the decision-making process. Therefore, these studies are similar to the results of this study, which show the important role of financial analysis and the decision-making process.

Regarding the studies conducted on the role of financial analysis and its ability to predict financial distress, the results of Rachmawati & Maulana, (2022) showed that the measure of predicting financial distress in the Springate model was not partially affected by the solvency ratio, liquidity ratio, profitability ratio, activity ratios, and investment ratios that all partially contribute to the prediction of the financial crisis. Lumbantobing (2019) indicated that activity ratios have no effect on financial distress and that the most important ratios that reduce financial distress are high liquidity ratios, and the debt-to-earnings ratio. The results of other related studies showed that financial analysis ratios (liquidity, solvency, profitability, and activity) have an important relationship in reducing financial distress. Therefore, these studies are similar to this study in the important role of financial analysis ratios that have on financial distress, namely liquidity, solvency, and activity ratios. These studies differed from this study in that profitability ratios have an

important impact. However, the results showed no effect of profitability ratios on financial distress. Therefore, this study distinguishes itself from previous studies in that it examines two important topics: the role of financial analysis in the decision-making process and the power of financial analysis in predicting financial loss since most of these previous studies examined only one topic.

The studies collectively emphasize the significance of financial analysis tools and techniques in assisting decision-makers across various sectors, including banking, manufacturing, and airline industries. They highlight the importance of different financial ratios, such as profitability, liquidity, leverage, and activity ratios in assessing companies' financial health and predicting potential financial distress. One notable aspect across these studies is the diversity of methodologies employed, ranging from quantitative analysis to logistic regression, indicating a thorough exploration of the relationship between financial ratios and decision outcomes.

Overall, these findings underscore the critical role of financial analysis in enabling informed decision-making, mitigating financial risks, and enhancing the overall financial performance of organizations across different sectors.

Chapter Three:

Study Methodology

3-1 Research Approach

This study is one of the descriptive analytical studies that aim to state the role of financial analysis on the decision-making process and its predicting power on the financial distress among non-financial companies listed on the Palestine Exchange.

Therefore, the descriptive approach was used to describe the general information of the respondents. This was conducted by converting qualitative data into quantitative data, using a questionnaire that was specially prepared to reach the goals of the research and commensurate with the first hypothesis that was adopted.

To test the second hypothesis, which investigates the effect of financial analysis in the predicting power of financial distress, the analytical approach was utilized and included the analysis of the financial statements for listed companies in the years 2019 to 2022.

3-2 Population and Sample

The research population is the non-financial companies listed on the Palestine Exchange, which contains 33 listed corporations, according to records of the Palestine Stock Exchange. (Palestine Stock Exchange, 2024)

The first main hypothesis sample is CEOs, CFOs, senior accountants, and financial analysts in companies. The questionnaire was sent to them via each company's email. 74 responses were received, and they are distributed as follows: CEOs 17 responses, CFOs 26 responses, senior accountants 12 responses, and financial analysts 19 responses. The sectors were as follows: industrial 30, service 19, and investment 25.

The sample for the second main hypothesis (the analysis of the financial statements for the years from 2019 to 2022 for non-financial listed companies, to calculate the value of Z-Score as well as to calculate the financial ratios) is 512 observations; as a result, Arkan Al -Aqarya Company was excluded because it was started at 2022.

3-3 Data Collection Method

1 Secondary Sources: The study's theoretical framework was prepared by referring to secondary data sources, which include relevant Arabic and foreign books periodicals, articles, and studies that dealt with the subject of the study, previous research, references, reports, research articles, and reading on internet websites. It also included the financial statements of the non-financial listed companies for the years 2019 to 2022.

2. Primary Sources: To address the analytical aspects of the subject of the study, the researcher resorted to collecting data. The preliminary study was conducted through a questionnaire, designed specifically for this purpose.

Therefore, the researcher resorted to collecting data for the first main hypothesis, through a questionnaire, designed specifically for this purpose for the non-financial listed companies, and which was sent to them via each company's email.

The researcher resorted to collecting data for the second main hypothesis, through the analysis of the financial statements for the years 2019 to 2022 for the non-financial listed companies, to calculate the value of Z-Score as well as the financial ratios.

3-4- Development of Research Instrument

This section presents a detailed description of the study methodology and procedures. It includes a description of the study approach, the study population and sample, study tools, validity and reliability of the tools, study procedures, and statistical treatment methods.

According to the nature of the subject and its objectives, o, the descriptive analytical approach was used. It required collecting data from the study population, classifying it, analyzing it, and interpreting it to reach its results.

The research instruments are:

- 1- The Statistical Software Package for the Social Sciences (SPSS)
- 2- The following statistical tests were used:
 - A. Duplicates and weights relativity,
 - B. Averages arithmetic,
 - C. Distraction's normativity,
 - D. A test Cronbach alpha,
 - E. Simple and Multiple Regression.
- 3- The descriptive statistical measures:
 - A- Median B- Standard deviation,
 - B- Arithmetic mean, D- largest value, and minimum value

3-5 Study Sample:

The study sample consisted of (74) individuals from administrators who work in Palestinian-listed companies and were selected using a simple random sampling method.

Table (2) shows the demographic characteristics of sample members:

Table (2): Description of the Survey Sample for the Main First Hypothesis:

Variable	Variable levels	The number	The ratio %
Job Title	Director General	17	23.0
	Financial Manager	26	35.1
	Senior Accountant	12	16.2
	Financial Analyst	19	25.7
	Total	74	100.0
Educational Level	Bachelor's	49	66.2
	Master's	25	33.8
	Total	74	100.0
The sector in which the company operates	Industrial	30	40.5
	Service	19	25.7
	Investment	25	33.8
	Total	74	100.0

Table (3): Description of the Analysis Sample for the Financial Statement for the Main Second Hypothesis

Variables	Variable levels	The observations number
Liquidity ratio	Current Ratio (CR)	512
Solvency ratio	Debt to Equity Ratio (DER)	512
Profitability ratio	Return on Assets (ROA)	512
Activity ratio	Total Assets Turnover (TATO)	512
Financial distress (Z Score)	Z score Modell	512

3-6- Validity and Reliability of Research Instrument

1- Construct validity

The validity of the scale was verified by calculating the Pearson correlation coefficient (Pearson Correlation) for each paragraph of the field to which it belongs, as shown in the tables below. The Pearson correlation coefficient, or Pearson correlation, determines the strength of the linear relationship between two variables. The stronger the correlation between the two variables, the closer your answer is to 1 or -1. Having values of 1 or -1 indicates that all data points are plotted on a straight line from the “best fit.” This means that a change in the factors of any variable does not weaken the association with the other variable. The closer your answer is to 0, the greater the variance in the variables.

Table (4): Results of Factor Link (Pearson Correlation) for a Matrix Engagement all Paragraphs from Paragraph the Field with the Significance of Financial Analysis in the Decision Making

No.	Items	R
1.	The use of financial analysis in the company ensures correct and appropriate decisions	.908**
2.	Financial analysis plays a significant role in the company's success	.897**
3.	Financial analysis provides management with information that enables it to develop the company's strategic plans	.690**
4.	The company uses financial analysis to evaluate the efficiency and effectiveness of internal control	.548**
5.	Financial analysis provides management with indicators that help review the results of decisions made in the company	.787**
6.	The company uses vertical analysis before the decision-making process	.680**
7.	The company uses horizontal analysis before the decision-making process	.802**

No.	Items	R
8.	Using the company's financial analysis shows the effectiveness and efficiency of financial performance	.851**
9.	Using the company's financial analysis to identify strengths and weaknesses	.773**
10.	The results of the company's financial analysis reach decision-makers on time.	.694**

** Correlation is Significant at (closer to 1 or -1)

The data presented in Table (4) indicate that all paragraphs of the correlation matrix are statistically significantly related to their field, which indicates a relationship between each paragraph and the degree of importance of financial analysis in the decision-making process.

Table (5): Results Factor Link (Pearson correlation) for a Matrix Engagement all Paragraphs from Paragraph in the Field with the use of Liquidity Ratios in Financial Analysis and the Decision-Making Process

No.	Items	R
1.	The company's management prefers and pays attention to making decisions if it has reasonable liquidity ratios	.637**
2.	The company's management considers cash flows from operational activities before making decisions	.680**
3.	The company's management considers cash flows from financing activities before making decisions	.829**
4.	The company's management considers cash flows from investments, before making decisions	.857**
5.	The company's internal policy leads to relying on its working capital before making decisions	.813**

No.	Items	R
6.	The company's internal policy leads to relying on its current ratio before making decisions	.699**
7.	The company's internal policy leads to relying on its Acid-Test (quick) ratio before making decisions	.901**
8.	Liquidity ratios contribute to correcting and enhancing decisions and ensuring their effectiveness	.616**

** Correlation is Significant at (closer to 1 or -1)

The data presented in Table (5) indicate that all paragraphs of the correlation matrix are statistically significantly related to their field, which indicates a relationship between each paragraph and the degree of the use of Liquidity ratios in financial analysis and the decision-making process.

Table (6): Results Factor Link (Pearson correlation) for a Matrix Engagement all Paragraphs from Paragraph the Field with the use of Solvency Ratios in Financial Analysis and the Decision-Making Process

No.	Items	R
1.	The company's administration relies on debt ratios for several years before making decisions	.739**
2.	The company's administration relies on the debt-to-equity ratio before making decisions	.844**
3.	The company's administration relies on the of debt to assets ratio before making decisions	.862**
4.	The company's administration follows up on changes in debt ratio indicators to enhance the decisions taken	.712**
5.	Debt ratios provide management with information that helps determine the company's internal control procedures	.580**

** Correlation is Significant at (closer to 1 or -1)

The data presented in Table (6) indicate that all paragraphs of the correlation matrix are statistically significantly related to their field, which indicates a relationship between each paragraph and the degree of the use of solvency ratios in financial analysis and the decision-making process.

Table (7): Results Factor Link (Pearson correlation) for a Matrix Engagement all Paragraphs from Paragraph in the Field with the use of Profitability Ratios in Financial Analysis and the Decision-Making Process

No.	Items	R
1.	The company's management cares about profitability and calculates its ratios before making decisions	.615**
2.	The company's administration analyzes the components of profit before making decisions	.590**
3.	The company's administration analyzes the operating profit margin ratio before making decisions	.764**
4.	The company's management considers any unusual or non-recurring income, expenses, profit, or loss before making decisions	.660**
5.	The company's administration monitors the rate of return on assets when making decisions	.666**
6.	The company's administration analyzes operating expenses to evaluate their effectiveness and role in achieving revenues before making decisions	.694**
7.	The company's management analyzes the return on assets ratio before making decisions	.862**
8.	The company's management analyzes the return on equity ratio before making decisions	.650**

** Correlation is Significant at (closer to 1 or -1)

The data presented in Table (7) indicate that all paragraphs of the correlation matrix are statistically significantly related to their field, which indicates a relationship between each paragraph and the degree of the use of profitability ratios in financial analysis and the decision-making process.

Table (8): Results Factor Link (Pearson correlation) for a Matrix Engagement all Paragraphs from Paragraph in the Field with the use of Activity Ratios in Financial Analysis and the Decision-Making Process

No.	Items	R
1.	The company's administration cares about activity indicators before making decisions	.730**
2.	The company's administration considers indicators of internal activity sources before making decisions	.744**
3.	The company's administration depends on the inventory turnover index before making decisions	.651**
4.	The company's administration depends on the account receivables turnover in days index before making decisions	.763**
5.	The company's administration depends on the total asset turnover index before making decisions	.589**
6.	Analysis of activity ratios provides management with information that helps correct errors in decisions made if they occur in the company	.653**

** Correlation is Significant at (closer to 1 or -1)

The data presented in Table (8) indicate that all paragraphs of the correlation matrix are statistically significantly related to their field, which indicates a relationship between each paragraph and the degree of the use of activity ratios in financial analysis and the decision-making process.

2- Reliability of the SCALE:

As shown in Table (9), reliability was calculated using the Cronbach Alpha method and the McDonald Omega method.

Table (9): Reliability of the Scale

Variables	No. of items	Cronbach alpha	McDonald ω
The significance of financial analysis on the decision-making	10	.904	.914
The use of liquidity ratios in financial analysis and decision-making	8	.894	.898
The use of solvency ratios in financial analysis and decision-making	5	.802	.815
The use of profitability ratios in financial analysis and decision-making	8	.839	.831
The use of activity ratios in financial analysis and decision-making	6	.779	.772

The data presented in Table (9) indicates that the value of the Cronbach Alpha reliability coefficient for all fields of the scale was greater than (0.7), which indicates that the scale has a high degree of reliability.

3- Scale Correction:

The scores of answers were distributed to the scale items using the Likert method. The respondent receives 5 scores if the answer is (Very Significant), 4 scores if the answer is (Significant), 3 scores if the answer is (Neutral), 2 scores if the answer is (weak), and 1 score if the answer is (Very weak).

Scale range = limit the above for scale-limit lowest for scale = $(5-1) = 4$

Number of Categories =3

Length Category = range the scale \div number Categories = $4 \div 3 = 1.33$

By adding Length Category (1.33) to reduce the lowest for every category, we can obtain

Categories Averages Arithmetic as explained in Table (9):

Table (10): Categories of Arithmetic Averages to Determine the Degree of Approval

Degree of approval	Arithmetic average categories
Low	2.33 or less
Medium	2.34-3.67
High	3.68 or more

3-7- Statistical Data Analysis Techniques

The Statistical Software Package for the Social Sciences (SPSS) was used to analyze the data after applying the tool to the study sample. SPSS28, Amos26, and the following statistical tests were used: Duplicates and weights relativity, averages arithmetic, Distraction's normativity, a test Cronbach alpha, and Simple and Multiple Regression. To examine the study hypotheses, standard methods were used to analyze longitudinal data over time series. These methods were as follows:

1- Descriptive Statistics: The study relied on descriptive statistical measures (median, standard deviation, arithmetic mean, largest value, and minimum value) to describe the data of the study variables.

2- String Stability test - Unit Root Test:

Before starting to analyze data and test hypotheses, the researcher must first ensure the stationarity of the time series and determine the degree of its stability. Unit Root Tests were used to verify the stationarity of the time series, as the condition of stationarity is a basic condition for time series analysis to reach sound and logical results. A time series is considered stationary if the following conditions are met:

- 1- The stability of the arithmetic mean of values over time.
- 2- Constancy of variation over time.
- 3- The covariance between any two values of the same variable depends on the time gap between the two values and not on the actual value of the time at which the covariance should occur.

This was done by testing the presence of a (unit root test) in the time series using the Augmented Dickey-Fuller test, which is based on testing the following two hypotheses:

- 1-The null hypothesis that indicates the non-stationary time series
- 2-The alternative hypothesis that indicates the stationarity of the time series

If the null hypothesis is rejected, this indicates that the time series is stationary at its levels. However, if the null hypothesis is not rejected, this indicates that the time series is not stationary at its levels.

3- Simple Linear Regression and Multi-Linear Regression

A- Simple Linear Regression:

Simple linear regression is a statistical method used to model the relationship between two variables: one independent variable (predictor) and one dependent variable (outcome).

It assumes the existence of a linear relationship between the independent and dependent variables, which means that changes in the independent variable are associated with changes in the dependent variable consistently and proportionally.

The method aims to fit a straight line to the data points in such a way that the sum of the squared distances between the observed and predicted values (residuals) is minimized.

This line represents the best-fit line or regression line.

The equation of a simple linear regression model can be expressed as:

$$Y = \beta_0 + \beta_1 X + \varepsilon$$

Y is the predicted value of the dependent variable (y) for any given value of the independent variable (x).

β_0 is the intercept, the predicted value of y when the x is 0.

β_1 is the regression coefficient – how much we expect y to change as x increases.

X is the independent variable (the variable we expect is influencing y).

ε is the error of the estimate or the variation in our estimate of the regression coefficient.

B- Multiple Linear Regression:

Multiple Linear Regression extends the concept of simple linear regression to model the relationship between multiple independent variables and one dependent variable.

It assumes a linear relationship between the dependent variable and each of the independent variables, with the coefficients representing the contribution of each independent variable to the dependent variable, holding other variables constant.

The equation of a multiple linear regression model can be expressed as:

$$Y = \beta_0 + \beta_1 (X_1) + \beta_2 (X_2) + \beta_3 (X_3) + \beta_4 (X_4) + \varepsilon$$

where:

Y: represents the dependent variable,

X_1 : X_4 independent variables

β_0 : function constant of the dependent variable.

β_1 : β_4 : coefficients of the independent variables.

ε : is the error of the estimate or the variation in our estimate of the regression coefficient.

Chapter Four:

Data Analysis and Findings

4-1- Hypotheses Testing

This Section includes the statistical analysis of data resulting from the study; in addition to the test of its hypotheses.

4-1-1- Test of the first main hypothesis (H1):

There is a positive effect of using financial analysis and the decision-making process.

To answer the first question, the arithmetic means, standard deviations, and relative weights for the significance of financial analysis in decision-making are computed as shown in Table (11).

Table (11): Standard Deviations, Arithmetic Averages, and Relative Weights for the Significance of Financial Analysis on the Decision-Making Ranked in a Descending Order

No.	Items	Mean	Std. Dev.	%	Approval
3	Financial analysis provides management with information that enables it to develop strategic plans for the company	4.45	0.83	89.0	High
9	Using the company's financial analysis to identify strengths and weaknesses	4.20	0.79	84.0	High
4	The company uses financial analysis to evaluate the efficiency and effectiveness of internal control	4.18	1.04	83.6	High

No.	Items	Mean	Std. Dev.	%	Approval
5	Financial analysis provides management with indicators that help review the results of decisions made in the company	4.00	1.15	80.0	High
8	Using the company's financial analysis shows the effectiveness and efficiency of financial performance	3.88	0.81	77.6	High
2	Financial analysis plays a significant role in the company's success	3.85	1.17	77.0	High
10	The results of the company's financial analysis reach decision-makers on time	3.82	0.91	76.4	High
7	The company uses horizontal analysis before the decision-making process	3.80	0.86	76.0	High
1	The use of financial analysis in the company ensures that correct and appropriate decisions	3.77	1.15	75.4	High
6	The company uses vertical analysis before the decision-making process	3.74	0.83	74.8	High
Total degree for the importance of financial analysis in the process of making decisions		3.97	0.71	79.4	High

It is clear from Table (11) above that the arithmetic average of the study sample members' estimates regarding the significance of financial analysis on the decision-making process reached (3.97), with a percentage of (79.4%) and a high degree of agreement. The arithmetic averages ranged between (3.74 - 4.45). Paragraph (3) "Financial analysis provides management with information that enables it to develop strategic plans for the company" came first with an average arithmetic (of 4.45) and a percentage of (89.0%). While paragraph (6) "The company uses vertical analysis before the decision-making

process” came last with an average arithmetic (3.74) and a percentage of (74.8%). Therefore, there is great importance for financial analysis in the decision-making process.

1- Test of the First Sub-Hypothesis (H₁₋₁):

There is a positive effect of using liquidity ratios in financial analysis and decision-making.

To answer the second question, the arithmetic standard deviations, means, and relative weights for the significance of using liquidity ratios in financial analysis and decision-making (administrative, financing, and investment) are computed as shown in Table (12).

Table (12): Arithmetic Averages, Standard Deviations, and Relative Weights for the Importance of Using Liquidity Ratios in Financial Analysis and the Decision-Making Process, Ranked in Descending Order.

No.	Items	Mean	Std. Dev.	%	Approval
3	The company's management considers cash flows from financing activities before making decisions	4.22	0.91	84.4	High
2	The company's management considers cash flows from operational before making decisions	4.19	0.87	83.8	High
5	The company's internal policy leads to relying on its working capital before making decisions	4.18	0.83	83.6	High
4	The company's management considers cash flows from investments before making decisions	4.15	0.92	83.0	High
7	The company's internal policy leads to relying on its Acid-Test (quick) ratio before making decisions	4.14	1.00	82.8	High
6	The company's internal policy leads to relying on its current ratio before making decisions	4.12	0.81	82.4	High
1	The company's management prefers and gives a great deal of attention to making decisions if it has reasonable liquidity ratios	4.07	0.75	81.4	High

No.	Items	Mean	Std. Dev.	%	Approval
8	Liquidity ratios contribute to correcting and enhancing decisions and ensuring their effectiveness	3.93	0.90	78.6	High
Total degree of the significance of using liquidity ratios in financial analysis and the process of making decisions		4.12	0.66	82.4	High

It is clear from Table (12) that the arithmetic average of the study sample members' estimates regarding the significance of using liquidity ratios in financial analysis and the process of making decisions (administrative, financing, and investment) reached (4.12), with a percentage of (82.4%) and a high degree of agreement. The arithmetic averages ranged between (3.93 - 4.22). Paragraph (3) "The company's management considers cash flows from financing activities before making decisions" came first with an average arithmetic of (4.22) and a percentage of (84.4%). Paragraph (8) "Liquidity ratios contribute to correcting and enhancing decisions and ensuring their effectiveness" came last with an average arithmetic of (3.93) and a percentage of (78.6%). Therefore, there is great importance in using liquidity ratios in financial analysis and the process of making decisions.

2- Test of the Second Sub-Hypothesis (H₁₋₂):

There is a positive effect of using solvency ratios in financial analysis and the decision-making process.

To answer the third question, the arithmetic means, standard deviations, and relative weights for the significance of using solvency ratios in financial analysis and the process of making decisions are computed as shown in Table (13).

Table (13): Arithmetic Averages, Standard Deviations, and Relative Weights for the Significance of Using Solvency Ratios in Financial Analysis and the Process of Making Decisions, Ranked in Descending Order.

No.	Items	Mean	Std. Dev.	%	Approval
5	Debt ratios provide management with information that helps it determine the company's internal control procedures	3.93	0.78	78.6	High
1	The company's management gives a great deal and relies on debt ratios for several years before making decisions	3.85	0.73	77.0	High
4	The company's management follows up on changes in debt ratio indicators to enhance the decisions taken	3.80	0.83	76.0	High
3	The company's administration relies on the of debt to assets ratio before making decisions	3.72	0.82	74.4	High
2	The company's administration relies on the debt-to-equity ratio before making decisions	3.70	0.75	74.0	High
Total degree for the significance of using solvency ratios in financial analysis and the process of making decisions		3.80	0.59	76.0	High

It is clear from Table (13) that the arithmetic average of the study sample members' estimates regarding the significance of using solvency ratios in financial analysis and the process of making decisions reached (3.80), with a percentage of (76.0%) and a high degree of agreement. The arithmetic averages ranged between (3.70 - 3.93). Paragraph (5) "Debt ratios provide management with information that helps it determine the company's internal control procedures" came first with an average arithmetic (of 3.93) and a percentage of (78.6%). While paragraph (2) "The company's management depends on the debt-to-equity ratio before making decisions" came last with an average arithmetic

of (3.70) and a percentage of (74.0%). Therefore, there is great importance in using solvency ratios in financial analysis and the process of making decisions.

3- Test of the Third Sub-Hypothesis (H₁₋₃):

There is a positive effect of using profitability ratios in financial analysis and decision-making.

To answer the fourth question, the arithmetic standard deviations, means, and relative weights for the significance of using profitability ratios in financial analysis and decision-making are computed shown in Table (14).

Table (14): Arithmetic Averages, Standard Deviations, and Relative Weights for the Significance of Using Profitability Ratios in Financial Analysis and Decision-Making, Ranked in Descending Order.

No.	Items	Mean	Std. Dev.	%	Approval
1	The company's management gives great importance and calculates profitability ratios before making decisions	4.00	0.76	80.0	High
2	The company's administration analyzes the components of profit before making decisions	3.89	0.82	77.8	High
3	The companies analyze the operating profit margin ratio before making decisions	3.82	0.80	76.4	High
8	The company's administration analyzes the return on equity ratio before making decisions	3.80	0.70	76.0	High
6	The company's administration analyzes operating expenses to evaluate their effectiveness and role in achieving revenues before making decisions	3.80	0.74	76.0	High
5	The company's management monitors the rate of return on assets when making decisions	3.76	0.92	75.2	High
7	The company's administration analyzes the return on assets ratio before making decisions	3.72	0.80	74.4	High

No.	Items	Mean	Std. Dev.	%	Approval
4	The company's management considers any unusual or non-recurring income, expenses, profit, or loss before making decisions	3.68	0.78	73.6	High
Total degree for the importance of using profitability ratios in financial analysis and the process of making decisions		3.81	0.54	76.2	High

It is clear from Table (14) that the arithmetic average of the study sample members' estimates regarding the significance of using profitability ratios in financial analysis and decision-making reached (3.81), with a percentage of (76.2%) and a high degree of agreement. The arithmetic averages ranged between (3.68 - and 4.00). Paragraph (1) "The company's management gives great importance and calculates profitability ratios before making decisions" came first with an average arithmetic (of 4.00) and a percentage of (80.0%). However, paragraph (4) "The company's management considers any unusual or non-recurring income, expenses, profit, or loss before making decisions" came last with an average arithmetic (3.68) and a percentage of (73.6%). Therefore, there is great importance in using profitability ratios in financial analysis and the decision-making process.

4- Test of the Fourth Sub-Hypothesis (H₁₋₄):

There is a positive effect of using activity ratios in financial analysis and decision-making.

To answer the fourth question, the arithmetic means, standard deviations, and relative weights for the significance of using activity ratios in financial analysis and decision-making are computed as shown in Table (15).

Table (15): Standard Deviations, Arithmetic Averages, and Relative Weights for the Importance of Using Activity Ratios in Financial Analysis and Decision-Making, Ranked in Descending Order.

No.	Items	Mean	Std. Dev.	%	Approval
4	The company's administration relies on account receivables turnover index days before making decisions	4.07	0.83	81.4	High
2	The company's administration considers indicators of internal activity sources before making decisions	4.00	0.78	80.0	High
5	The company's administration relies on the total asset turnover index before making decisions	3.96	0.69	79.2	High
6	Analysis of activity ratios provides management with information that helps it correct errors in decisions made if they occur in the company	3.84	0.86	76.8	High
3	The company's administration relies on the inventory turnover index before making decisions	3.81	0.75	76.2	High
1	The company's administration gives a great deal to activity indicators before making decisions	3.76	0.82	75.2	High
Total degree of the significance of using activity ratios in financial analysis and the decision-making process		3.91	0.55	78.2	High

It is clear from Table (15) that the arithmetic average of the study sample members' estimates regarding the significance of using activity ratios in financial analysis and decision-making reached (3.91), with a percentage of (78.2%) and a high degree of agreement. The arithmetic averages ranged between (3.76 - 4.07). Paragraph (4) "The company's administration relies on the account receivables turnover in days index before making decisions" came first with an average arithmetic (of 4.07) and a percentage of (81.4%). Paragraph (1) "The Company's management gives a great deal to activity indicators before making decisions" came last with an average arithmetic (of 3.76) and a percentage of

(75.2%). Therefore, there is great importance in using activity ratios in financial analysis and the process of making decisions.

4-1-2 Testing the Main Second Hypothesis (H₀₋₂)

There is no statistically important impact of financial analysis ratios (liquidity, solvency, profitability, activity) on the predicting power of financial distress.

This part includes a presentation of data analysis and testing of the second hypothesis. It presents the analysis of the data obtained, shows the most important outcomes reached, and identifies the hypothesis variables. Therefore, statistical treatments were performed on the combined data during the period from the year (2019) to the year (2022) using the Statistical Analysis Program (EViews) to obtain the outcomes of the research that were presented and analyzed in this part.

Study Approach:

The study methodology is the method followed by the researcher to reach results related to the topic in question. In the study, the researcher relied on the descriptive analytical approach in the theoretical aspect of the study. The applied aspect related to the standard study used the quantitative method by using Longitudinal time series data (Panel Data), which represents the financial data of Palestinian companies during a certain period, mainly using the statistical program (EViews) to apply all statistical and measurement methods.

Descriptive statistics for the hypothesis variables (solvency ratio, liquidity ratio, profitability ratio, activity ratio, financial distress)

Table (16): Definition of Variables for the Hypothesis

1- Independent Variables

Variables	Indicators	Measurement	Scale
Liquidity ratios(X1)	Current Ratio (CR)	$\frac{\text{Current Assets}}{\text{Current Liabilities}}$	Ratio
Solvency ratios(X2)	Debt to Equity Ratio (DER)	$\frac{\text{Total Debts}}{\text{Total Equity}}$	Ratio
Profitability ratios(X3)	Return on Assets (ROA)	$\frac{\text{Earning After Tax}}{\text{Total Assets}}$	Ratio
Activity ratios(X4)	Total Assets Turnover (TATO)	$\frac{\text{Net Sales}}{\text{Total Assets}}$	Ratio

2- The dependent variable (DV):

Variables	Indicators	Measurement	Scale
financial distress	The model	$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 0.99X_5$	Ratio

Z = value of the financial failure index

X1 = (working capital / total assets). X2 = (profits or losses / total assets). X3 = Net profits before tax / Total assets) .X4 = (market value equity / total liabilities). X5 = (Sales / Total Assets)

The company is safe if Z is greater than 3; if Z is less than 1.8, there is a chance of financial failure.

If it is between 1.8 and 3, two cases are likely to occur.

1- The propensity for financial failure falls between the following ranges of 1.8 to 2.5

2- The propensity for financial success falls between the following ranges of 2.5 to 3

Therefore, the beginning of the company's safety point is at Z (2.5).

To identify the features of the data of the independent variables and the dependent variable, the standard deviation, median, arithmetic mean, and lowest and largest values were calculated, as shown in Table (17):

Table (17): Descriptive statistics for the hypothesis variables

Variables	(Mean)	(Median)	(Std. Dev.)	(Maximum)	(Minimum)
Liquidity ratio	0.835859	0.605000	0.769977	5.200000	0.010000
Solvency ratio	2.165547	1.460000	2.155959	13.460000	0.020000
Profitability ratio	0.050586	0.040000	0.118809	1.020000	-0.170000
Activity ratio	0.427656	0.340000	0.483525	3.800000	0.010000
Financial distress (Z Score)	3.830859	2.015000	9.874735	101.800000	-3.920000

• Annual time segments have been converted to quarterly to increase the segment length.

Table (17) illustrates:

1. The lowest value of the liquidity ratio was for the Arab Investors Company in the first quarter of the year (2019), where it reached (0.01). On the other hand, the highest value for the liquidity ratio was for the Palestine Industrial Investment Company in the fourth quarter of the year (2022) which amounted to (5.2). The average value of the liquidity ratio was liquidity in the period (2019 Q1-2022 Q4) (0.835859), median (0.605), and standard deviation (0.769977).

2. The lowest value of the solvency ratio was for the Arabian Hotels Company in the first quarter of the year (2020), where it reached (0.02), while the highest value for the solvency ratio was for the Palestinian Electricity Company in the fourth quarter of the year (2021), which reached (13.46). The average solvency ratio was in the period from (2019Q1-2022Q4) (2.165547), median (1.46), and standard deviation (2.155959).
3. The lowest value for the profitability ratio was for the Palestinian Investment and Reconstruction Company in the first quarter of the year (2020), where it reached (-0.17), while the highest value for the profitability ratio was for Birzeit Company in the fourth quarter of the year (2021), which reached (1.02). The average value for the profitability ratio was profitability in the period (2019Q1-2022Q4) (0.050586), median (0.04), and standard deviation (0.118809).
4. The lowest value for the activity rate was for Amlak Company in the first quarter of the year (2020), where it reached (0.01), while the highest value for the activity rate was for Birzeit Company in the fourth quarter of the year (2021) and amounted to (3.80). The average activity rate for the period from (2019Q1-2022Q4) (0.427656), median (0.34), and standard deviation (0.483525).
5. The lowest value of financial distress was for Arabian Hotels Company in the first quarter of the year (2020), reaching (-3.92), while the highest value of financial failure was for Arab Investors Company in the fourth quarter of the year (2022), reaching (101.80). The average financial failure in the period (2019Q1-2022Q4) was (3.830859), median (2.015000), and standard deviation (9.874735).

Verifying the Validity of Data for Statistical Analysis:

Before starting to analyze the data, estimate the study models, and test the hypotheses, it is necessary to verify the validity of the data, by verifying the normal distribution of the data, and testing the stationarity of the time series, where the (Panel Data) method was used to display the data.

Normal Distribution Test:

To verify how close the data was to its normal distribution, the parametric Jarque-Bera test was used, where the decision rule is to accept the null hypothesis which states that the data follows a normal distribution if the probability of the (J-B) test is greater than (0.05). The results of the normal distribution test for the data showed that the probability (J-B) for all variables was greater than (0.05), which means that they are normally distributed. Table (18) illustrates this issue as follows:

Table (18): Normal Distribution of Data

Variable	(Jarque- Bera) Test for raw data		
	J-B	Sig.	Distribution
Liquidity ratio	2.615	0.352	Normal
Solvability ratio	0.673	0.772	Normal
Profitability ratio	0.937	0.564	Normal
Activity ratio	0.375	0.716	Normal
Financial distress	0.772	0.680	Normal

String Stability Test

The Unit Root Test was used to verify the stability of the time series and determine the degree of integration of each series (degree of stability) using the Augmented Dicky-Fuller (ADF) test. Table (19) explains this as follows:

Table (19): Results of the Unit Root Test for the Hypothesis Variables

Variable	Level	Difference 1	Difference 2
	Sig.	Sig.	Sig.
Liquidity ratio	0.9957	0.000	---
Solvability ratio	0.9937	0.000	---
Profitability ratio	0.9599	0.000	---
Activity ratio	0.9828	0.000	---
Financial distress	0.9950	0.000	---

Table (19) shows the results of the stationarity test for the study variables. It is clear from the table that all variables were stationed after taking the first difference.

Longitudinal Data (Panel Data):

In the current decade, longitudinal data models have gained great interest, especially in economic studies since they consider the effect of change in time as well as the effect of change in cross-sectional observations. Longitudinal data are defined as cross-sectional observations measured in specific periods. The main benefit of using longitudinal data is to increase accuracy in forecasting by increasing the number of observations and relating the number of cross-sectional observations to the number of periods.

Estimating Regression Results:

The multiple Linear Regression Model was adopted to estimate the standard model and measure the effect of financial analysis ratios on the probability of financial distress in Palestinian-listed companies according to the model:

$$Y = \beta_0 + \beta_1 (X_1) + \beta_2 (X_2) + \beta_3 (X_3) + \beta_4 (X_4) + \varepsilon$$

where:

Y: represents the dependent variable, which is financial distress.

X1: Liquidity ratio.

X2: Solvency ratio.

X3: Profitability ratio.

X4: Activity ratio.

β_0 : function constant of the dependent variable.

β_1 : coefficients of the independent variables.

ε : error bounds.

- Data were converted to a natural logarithm.

1- Test the Second Main Hypothesis (H_{0-2}): There is no Statistically Important Impact at the Significance Level ($\alpha \leq 0.05$) of the Financial Analysis Ratios (Liquidity, Solvency, Profitability, Activity) on the Predicting Power of Financial Distress in the Palestinian Non-Financial Listed Companies.

A multiple linear regression test was used to examine the effect of financial analysis ratios (liquidity, solvency, profitability, activity) on financial distress in Palestinian-listed companies, as shown in Table (20)

Table (20): Results of the Multiple Linear Regression Test for the Effect of Financial Analysis Ratios (Liquidity, Solvency, Profitability, Activity) on the Predicting Power of Financial Distress in Palestinian Non-Financial Listed Companies.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.0607	0.1076	0.5639	0.5731
X1	0.4709	0.0510	9.2239	0.0000
X2	- 0.1207	0.0474	- 2.5440	0.0113
X3	0.0220	0.0299	0.7329	0.4640
X4	0.1537	0.0391	3.9337	0.0001

R-squared	0.9277	Mean dependent var	0.565077
Adjusted R-squared	0.9198	S.D. dependent var	1.268326
S.E. of regression	0.3592	Akaike info criterion	0.88428
Sum squared resid	59.4722	Schwarz criterion	1.306457
Log-likelihood	175.3756	Hannan-Quinn criteria.	1.049773
F-statistic	118.2184	Durbin-Watson stat	0.532093
Prob(F-statistic)	0.0000		

Table (20) makes this evident as follows:

- 1- The value of the F-statistic (118.2184) came with a probability value of (0.0000), which is smaller than (0.05). This indicates the predictive ability of the significance of the regression and the significance of the impact of the independent variables (financial analysis ratios) on the dependent variable (financial distress).
- 2- The sign of the constant is positive, for its value is (0.0607). This represents the value of financial distress when the value of the independent variables (financial analysis ratios) is equal to zero.
- 3- The sign of the coefficient of the independent variable (liquidity ratio) is positive (0.4709), which indicates the existence of a direct impact relationship between the liquidity ratio and financial distress. The calculated (t) value was (9.2239), which is greater than the tabulated (t) value (1.96), and the probability value reached (0.0000), which is smaller than (0.05) and statistically significant, which means that the liquidity ratio affects financial distress in the direct direction. The higher the liquidity ratio, the Z-Score increases and the lower the financial distress.
- 4- The sign of the coefficient of the independent variable (solvency ratio) is negative (-0.1207), which indicates the existence of an inverse influence relationship between the solvency ratio and financial distress. The calculated (t) value was (2.5440), which

is greater than the tabulated (t) value (1.96), and the probability value was (1.96). (0.0113) is smaller than (0.05) and it is statistically significant, which means that the solvency ratio affects financial distress in an inverse direction. The higher the solvency ratio, the Z-Score decreases, so the greater the financial distress.

- 5- The sign of the coefficient of the independent variable (profitability ratio) is positive (0.0220), and the calculated (t) value was (0.7329), which is smaller than the tabular (t) value (1.96), and the probability value was (0.4640), which is greater than (0.05) and it is not statistically important. That is, the profitability ratio does not influence financial distress, so the profitability ratio was excluded from the model.
- 6- The sign of the coefficient of the independent variable (activity ratio) is positive (0.1537), which indicates the existence of a direct impact relationship between the activity ratio and financial distress. The calculated (t) value was (3.9337), which is greater than the tabulated (t) value (1.96), and the probability value was (0.0001), which is less than (0.05) and is statistically significant, which means that the activity rate affects financial distress in the direct direction. The higher the activity rate, the Z-Score increases so the lower the financial distress.
- 7- The value of the Adjusted R-squared coefficient of the determination reached (0.9198). This means that the financial analysis ratios (liquidity ratio, solvency ratio, activity ratio) explain (91.98%) of the change in financial distress among Palestinian non-financial listed companies and the remaining percentage (8.02%) is explained by other factors. The dependent variable (financial distress) was represented by the following linear relationship:

$$Y = (0.0607) + (0.4709) X_1 - (0.1207) X_2 + (.1537) X_4 \dots \dots \dots (1)$$

Y: dependent variable (financial distress).

(X1): Liquidity ratio, (X2): Solvency ratio, (X4): Activity ratio

Through equation (1), it is shown that an increase in the liquidity ratio by one integer amount leads to an increase of Z-Score and a decrease in financial distress by (0.4709).

A decrease in the solvency ratio by one integer amount leads to a decrease in Z-Score and an increase in financial distress by (0.1207). An increase in the activity ratio by one integer amount leads to an increase in Z-Score and a decrease in financial distress by (0.1537).

Result: The null hypothesis, which states that there is no significant statistical impact at the significance level ($\alpha \leq 0.05$) of the financial analysis ratios (liquidity, solvency, profitability, activity) on financial distress in Palestinian listed companies, was rejected. The alternative hypothesis was accepted, which acknowledges the existence of an effect that is statistically significant at the significance level ($\alpha \leq 0.05$) for the financial analysis ratios (liquidity, solvency, activity) on financial distress in Palestinian listed companies, and the profitability ratio was excluded from the model because it does not affect financial distress in Palestinian non-financial listed companies.

2- Testing the First Sub-Hypotheses of The Second Main Hypothesis (H₀₋₂₋₁)

The First Sub-Hypothesis (H₀₋₂₋₁): There is no Significant Statistical Impact at the Significance Level ($\alpha \leq 0.05$) of the Liquidity Ratio on the Predicting Power of Financial Distress in Non-Financial Palestinian Listed Companies.

A simple linear regression test was used to examine the effect of the liquidity ratio on financial distress in Palestinian-listed companies, as shown in Table (21).

Table (21): Results of the Simple Linear Regression Test for the Effect of the Liquidity Ratio on the predicting Power of Financial Distress in Palestinian Non-Financial-Listed Companies.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.3294	0.0347	9.5024	0.0000
X1	0.3588	0.0464	7.7327	0.0000
R-squared	0.9188	Mean dependent var		0.5651
Adjusted R-squared	0.9133	S.D. dependent var		1.2683
S.E. of regression	0.3734	Akaike info criterion		0.9297
Sum squared resid	66.7685	Schwarz criterion		1.2029
Log-likelihood	205.0007	Hannan-Quinn criteria.		1.0368
F-statistic	169.3192	Durbin-Watson stat		0.4993
Prob(F-statistic)	0.0000			

Table (21) illustrates this as follows:

- 1- The value of the F-statistic (169.3192) came with a probability value of (0.0000), which is smaller than (0.05). This indicates the predictive ability of the regression and the significance of the effect of the independent variable (liquidity ratio) on the dependent variable (financial distress).
- 2- The sign of the constant is a positive sign, as its value is (0.3294), which represents the value of financial distress when the value of the independent variable (liquidity ratio) is equal to zero.
- 3- The sign of the coefficient of the independent variable (liquidity ratio) is positive (0.3588), which indicates the existence of a direct impact relationship between the liquidity ratio and financial distress. The calculated (t) value was (7.7327), which is higher than the tabulated (t) value (1.96). The probability value was (0.0000), which

is less than (0.05) and it is statistically significant, which means that the liquidity ratio affects financial distress in the direct direction. The higher the liquidity ratio, the Z-Score increases so the lower the financial distress.

- 4- The Adjusted R-squared coefficient of the determination reached (0.9133). This means that the liquidity ratio explains (91.33%) of the change in financial distress in Palestinian non-financial listed companies and the remaining percentage (8.67%) is explained by other factors. The dependent variable (financial distress) was represented by the following linear relationship:

$$Y = (0.3294) + (0.3588) X_1 \dots\dots\dots (2)$$

Y: dependent variable (financial distress).

(X1): The independent variable (liquidity ratio).

Equation (2) shows that an increase in the liquidity ratio by one integer amount leads to an increase in Z-Score and a decrease in financial distress by (0.3588).

Result: The null hypothesis was rejected. It states that there is no statistically significant impact at the significance level ($\alpha \leq 0.05$) of the liquidity ratio on financial distress in Palestinian listed companies, and the alternative hypothesis was accepted, which states a statistically significant impact at the significance level ($\alpha \leq 0.05$) for the ratio of liquidity to financial distress in Palestinian non-financial -listed companies.

3- The Second Sub-Hypothesis (H₀₋₂₋₂): There is no Statistically Important Impact at the Significance Level ($\alpha \leq 0.05$) of the Solvency Ratio on the Predicting Power of Financial Distress in Palestinian Non-Financial Listed Companies.

A simple linear regression test was used to examine the effect of the solvency ratio on financial distress in Palestinian-listed companies, as shown in Table (22).

Table (22): Results of The Simple Linear Regression Test for the Effect of the Solvency Ratio on the Predicting Power of Financial Distress in Palestinian Non-Financial Listed Companies.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.4991	0.0234	21.3146	0.0000
X2	-0.2049	0.0493	-4.1579	0.0000
R-squared	0.9142	Mean dependent var		0.5651
Adjusted R-squared	0.9055	S.D. dependent var		1.2683
S.E. of regression	0.3898	Akaike info criterion		1.0428
Sum squared resid	70.5072	Schwarz criterion		1.4401
Log-likelihood	-218.9485	Hannan-Quinn critter.		1.1985
F-statistic	105.2261	Durbin-Watson stat		0.5129
Prob(F-statistic)	0.0000			

Table (22) illustrates this as follows:

- 1- The value of the F-statistic (105.2261) came with a probability value of (0.0000), which is smaller than (0.05) and indicates the predictive ability of the significance of the regression and the significance of the effect of the independent variable (solvency ratio) on the dependent variable (financial distress).
- 2- The sign of the constant is a positive sign, for its value is (0.4991), which represents the value of financial distress when the value of the independent variable (solvency ratio) is equal to zero.
- 3- The sign of the coefficient of the independent variable (solvency ratio) is negative (-0.2049), which indicates the existence of an inverse influence relationship between the solvency ratio and financial distress. The calculated (t) value was (4.1579), which is greater than the tabulated (t) value (1.96), and the value of the probability reached

(0.0000), which is smaller than (0.05) and is statistically significant, which means that the solvency ratio affects financial distress in an opposite direction. The higher the solvency ratio, the Z-Score decreases so the greater the financial distress.

- 4- The value of the Adjusted R-squared coefficient of determination reached (0.9055). This means that the solvency ratio explains (90.55%) of the change in financial distress in Palestinian non-financial-listed companies and the remaining percentage (9.45%) is explained by other factors. The dependent variable (financial distress) was represented by the following linear relationship:

$$Y = (0.4991) - (0.2049) X_2 \dots\dots\dots (3)$$

Y: dependent variable (financial distress).

(X2): The independent variable (solvency ratio).

Through equation (3), it is shown that an increase in the solvency ratio by one integer amount leads to Z-Score decreases and an increase in financial distress by (0.2049).

Result: The null hypothesis was rejected, which states that there is no statistically important impact at the significance level ($\alpha \leq 0.05$) of the solvency ratio on financial distress in Palestinian non-financial companies, and the alternative hypothesis was accepted, which states that there is a statistically important impact at the significance level ($\alpha \leq 0.05$) for the solvency ratio over financial distress in Palestinian non-financial -listed companies.

4- The Third Sub-Hypothesis (H0-2-3): There is No Statistically Important Impact at The Significance Level ($A \leq 0.05$) of The Profitability Ratio on the Predicting Power of Financial Distress in Palestinian Non-Financial-Listed Companies.

A simple linear regression test was used to examine the effect of the profitability ratio on financial distress in Palestinian-listed companies, as shown in Table (23).

Table (23): Results of the Simple Linear Regression Test for the Effect of the Profitability Ratio on The Predicting Power of Financial Distress in Palestinian Non-Financial-Listed Companies.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.2358	1.4758	0.8374	0.4028
X3	1.6567	0.4662	3.5534	0.0004
R-squared	0.6708	Mean dependent var	3.9277	
Adjusted R-squared	0.6488	S.D. dependent var	9.8365	
S.E. of regression	5.8291	Akaike info criterion	6.4259	
Sum squared resid	16275.5274	Schwarz criterion	6.6990	
Log-likelihood	-1612.0244	Hannan-Quinn critter.	6.5330	
F-statistic	30.5044	Durbin-Watson stat	0.3655	
Prob(F-statistic)	0.0000			

Table (23) shows this as follows:

- 1- The value of the F-statistic (30.5044) came with a probability value of (0.0000), which is smaller than (0.05) and indicates the predictive ability of the significance of the regression and the significance of the effect of the independent variable (profitability ratio) on the dependent variable (financial distress).
- 2- The sign of the constant is positive, for its value is (1.2358), which represents the value of financial distress when the value of the independent variable (profitability ratio) is equal to zero.
- 3- The sign of the coefficient of the independent variable (profitability ratio) is positive (1.6567), which indicates the existence of a direct impact relationship between the

profitability ratio and financial distress. The calculated (t) value was (3.5534), which is greater than the tabulated (t) value (1.96). The probability value was (0.0004), which is smaller than (0.05) and statistically significant, which means that the profitability ratio affects financial distress in the direct direction. The higher the profitability ratio, the Z-Score increases so the lower the financial distress.

- 4- The value of the Adjusted R-squared coefficient of the determination reached (0.6488). This means that the profitability ratio explains (64.88%) of the change in financial distress in Palestinian non-financial listed companies and the remaining percentage (35.12%) is explained by other factors. The dependent variable (financial distress) was represented by the following linear relationship:

$$Y = (1.2358) + (1.6567) X_3 \dots\dots\dots (4)$$

Y: dependent variable (financial distress).

(X3): The independent variable (profitability ratio).

Through equation (4), it is shown that an increase in the profitability ratio by one integer amount leads to a Z-Score increase and a decrease in financial distress by (1.6567).

Result: The null hypothesis was rejected, which states that there is no statistically important impact at the significance level ($\alpha \leq 0.05$) of the profitability ratio on financial distress in Palestinian non-financial listed companies, and the alternative hypothesis was accepted, which states that there is a statistically important impact at the significance level ($\alpha \leq 0.05$) for the ratio of profitability to financial distress in Palestinian non-financial - listed companies.

5- The Fourth Sub-Hypothesis (H0-2-4): There Is No Statistically Important Impact at The Significance Level ($\alpha \leq 0.05$) Of the Activity Ratio on The Predicting Power of Financial Distress in Non-Financial Palestinian-Listed Companies.

A simple linear regression test was used to examine the effect of the activity ratio on financial distress in Palestinian-listed companies, as shown in Table (24).

Table (24): Results of The Simple Linear Regression Test for The Effect of The Activity Ratio on The Predicting Power Of Financial Distress In Palestinian Non-Financial-Listed Companies.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.5715	0.0183	31.2831	0.0000
X4	0.1282	0.0601	2.1325	0.0335
R-squared	0.9093	Mean dependent var		0.5715
Adjusted R-squared	0.8996	S.D. dependent var		1.2633
S.E. of regression	0.4002	Akaike info criterion		1.0992
Sum squared resid	69.3588	Schwarz criterion		1.5079
Log-likelihood	-216.8123	Hannan-Quinn critter.		1.2599
F-statistic	94.3337	Durbin-Watson stat		0.5085
Prob(F-statistic)	0.0000			

Table (24) makes this evident as follows:

- 1- The value of the F-statistic (94.3337) came with a probability value of (0.0000), which is smaller than (0.05), which indicates the predictive ability of the significance of the regression and the significance of the effect of the independent variable (activity ratio) on the dependent variable (financial distress).
- 2- The sign of the constant is a positive sign, for its value is (0.5715), which represents the value of financial distress when the value of the independent variable (activity ratio) is equal to zero.

- 3- The sign of the coefficient of the independent variable (activity ratio) is positive (0.1282), which indicates the existence of a direct impact relationship between the activity ratio and financial distress. The calculated (t) value was (2.1325), which is greater than the tabulated (t) value (1.96). The probability value was (0.0335), which is smaller than (0.05) and statistically significant, which means that the activity ratio affects financial distress in the direct direction. The higher the activity ratio, the Z-Score increases so the lower the financial distress.
- 4- The value of the Adjusted R-squared coefficient of determination reached (0.8996). This means that the activity ratio explains (89.96%) of the change in financial distress in Palestinian non-financial listed companies and the remaining percentage (10.04%) is explained by other factors. The dependent variable (financial distress) was represented by the following linear relationship:

$$Y = (0.5715) + (0.1282) X_4 \dots\dots\dots (5)$$

Y: dependent variable (financial distress).

(X4): The independent variable (activity ratio).

Through Equation (5), it is shown that an increase in the activity ratio by one integer amount leads to a Z-Score increase and a decrease in financial distress by (0.1282).

Result: The null hypothesis was rejected, which states that there is no statistically important impact at the significance level ($\alpha \leq 0.05$) of the activity ratio on financial distress in Palestinian non-financial listed companies, and the alternative hypothesis was accepted, which states that there is a statistically important impact at the significance level ($\alpha \leq 0.05$) for the activity ratio on financial distress in Palestinian non-financial listed companies.

Chapter Five:

Conclusions and Recommendations

5-1 Conclusions

The objectives of the study are to ascertain the significance of financial analysis in assessing companies and understand the mechanism by which it affects the decision-making process. The destructive approach used to achieve these objectives. In addition, the study investigated the major financial ratios that influence the predicting power of financial distress, and the analytic approach was used to achieve this objective.

The result of the main first hypothesis stated that there is a positive effect of using financial ratios analysis (liquidity, solvency, profitability, and activity) in decision-making in Palestinian non-financial listed companies.

The result of the main second hypothesis stated the existence of an effect. It is statistically significant at the significance level ($\alpha \leq 0.05$) for the financial analysis ratios (liquidity, solvency, activity) on the predicting power of financial distress in Palestinian non-financial listed companies, and the profitability ratio was excluded from the model because it does not affect financial distress in Palestinian non-financial listed companies. According to the abovementioned results, financial statement analysis tools and techniques are considered by decision-makers in the administrative, financing, and investment decision-making process. Moreover, the main factors in the predicting power of financial distress are liquidity, solvency, and activity indicators. Therefore, these indicators should be considered by different types of financial statement users, such as shareholders, lenders, creditors, and auditors, in the decision-making process.

The recommendations: Decision-makers across various domains, from administration to financing and investment, are urged to actively employ financial statement analysis tools

and techniques. Key indicators, such as liquidity, solvency, and activity should be carefully assessed by stakeholders including equity investors, lenders, creditors, and auditors to measure the likelihood of financial distress. Companies must give due consideration to any abnormal income or expenses, as these can significantly impact financial assessments. Emphasizing the significance of financial analysis and information is paramount for informed decision-making success, recognizing the influence of personal and functional factors. It is recommended to provide training for administrative decision-makers in financial analysis and decision-making courses to enhance their ability to adeptly interpret financial analysis outcomes.

5-2 Limitations of Study

The study limitation included the lack of access to the Palestinian Electricity Company since its headquarters is located in the Gaza Strip, whether via the Internet or by phone. There is also a lack of listed Palestinian companies, so the sample elements were general managers, financial managers, senior accountants, and financial analysts of the companies to obtain a large number of responses to the study tool, the questionnaire.

5-3 Recommendations for Future Research

Future recommendations for research are to expand the study population to include all companies, regardless of their nature, whether listed, private, insurance company, or bank, in addition to non-profit institutions, due to the significance of financial analysis in the process of making decisions and forecasting financial distress, according to the results of this study.

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Appendices

Questionnaire:

This survey aims to identify the Role of Financial Analysis on Decision-Making and its Predicting Power of Financial Distress Among Non-Financial Companies Listed on the Palestine Exchange, as a requirement for obtaining a Master's degree in Accounting and Auditing from the Arab American University in Ramallah.

We hope that you will kindly read the paragraphs contained in this questionnaire carefully and answer what is stated therein objectively by placing a mark (√) in front of the answer that expresses your point of view.

Your cooperation with us will be a reason for the success of this research, knowing that the information contained in this questionnaire will be confidential and is for scientific research purposes only.

Please accept our utmost respect and appreciation

Researcher: Ehab Shehadeh Nayef Shehadeh

First: General information

1- Job title

A- Director General B - Financial Manager

C- Senior accountant D- Financial Analyst E. others.....

2- Educational level

A- Diploma B- Bachelor's C- Master's D- Ph.D.

3-The sector in which the company operates.

A- Industrial B- Service C- Investment

Secondly -The significance of financial analysis on the decision-making process

Please put a mark (√) in front of the appropriate level of significance

No	Paragraph	Very Significantly	Significantly	average	weak	Very Weak
1-	The use of financial analysis in the company ensures that correct and appropriate decisions					
2-	Financial analysis plays a significant role in the company's success					
3-	Financial analysis provides management with information that enables it to develop strategic plans for the company					
4-	The company uses financial analysis to evaluate the efficiency and effectiveness of internal control					
5-	Financial analysis provides management with indicators that help it review the results of decisions made in the company					
6-	The company uses vertical analysis before the process of making decisions					
7-	The company uses horizontal analysis before the decision-making process					
8-	-Using the company's financial analysis shows the effectiveness and efficiency of financial performance s					
9-	Using the company's financial analysis to identify strengths and weaknesses					
10-	The results of the company's financial analysis reach decision-makers on time.					

Third- H1-1: There is a positive impact of using Liquidity ratio analysis in the decision-making process.

Please put a mark (√) in front of the appropriate level of significance

No	Paragraph	Very Significantly	Significantly	average	weak	Very Weak
1-	The company's management prefers and gives a great deal of attention to making decisions if it has reasonable liquidity ratios					
2-	The company's management considers cash flows from operational, before making decisions					
3-	The company's management considers cash flows from financing activities before making decisions					
4-	The company's management considers cash flows from investments, before making decisions					
5-	The company's internal policy leads to relying on its working capital before making decisions					
6-	The company's internal policy leads to relying on its current ratio before making decisions					
7-	The company's internal policy leads to relying on its Acid-Test (quick) ratio before making decisions					
8--	Liquidity ratios contribute to correcting and enhancing decisions and ensuring their effectiveness					

Fourth – H 1-2: There is a positive impact of using Solvency ratios in financial analysis and the decision-making process.

Please put a mark (√) in front of the appropriate level of significance

No	Paragraph	Very Significantly	Significantly	average	weak	Very Weak
1-	The company's administration gives a great deal and relies on debt ratios for several years before making decisions					
2-	The company's administration relies on the debt-to-equity ratio before making decisions					
3-	The company's administration relies on the of debt to assets ratio before making decisions					
4-	The company's administration follows up on changes in debt ratio indicators to enhance the decisions taken					
5-	Debt ratios provide management with information that helps it determine the company's internal control procedures					

Fifth – H1-3: There is a positive impact of using Profitability ratios in financial analysis and the decision-making process.

No	Paragraph	Very Significantly	Significantly	average	weak	Very Weak
1-	The company's management gives great importance and calculates profitability ratios before making decisions					
2-	The company's administration analyzes the components of profit before making decisions					
3-	The company's administration analyzes the operating profit margin ratio before making decisions					
4-	The company's management considers any unusual or non-recurring income, expenses, profit, or loss before making decisions					
5-	The company's administration monitors the rate of return on assets when making decisions					
6-	The company's administration analyzes operating expenses to evaluate their effectiveness and role in achieving revenues before making decisions					
7-	The company's management analyzes the return on assets ratio before making decisions					
8-	The company's management analyzes the return on equity ratio before making decisions					

Sixth – H1-4: There is a positive impact of using Activity ratios in financial analysis and the decision-making process.

Please put a mark (√) in front of the appropriate level of significance

No	Paragraph	Very Significantly	Significantly	average	weak	Very Weak
1-	The company's administration gives a great deal to activity indicators before making decisions					
2-	The company's administration considers indicators of internal activity sources before making decisions					
3-	The company's administration depends on the inventory turnover index before making decisions					
4-	The company's administration depends on the account receivables turnover in days index before making decisions					
5-	The company's administration depends on the total asset turnover index before making decisions					
6-	Analysis of activity ratios provides management with information that helps it correct errors in decisions made if they occur in the company					

الملخص

تهدف هذه الدراسة إلى فحص دور التحليل المالي في اتخاذ القرار وقوته في التنبؤ بالضائقة المالية لدى الشركات غير المالية المدرجة في بورصة فلسطين. ويتناول أهم التقنيات والأدوات والأساليب المالية المستخدمة لدراسة أهميتها في اتخاذ القرار وقوة التنبؤ بالضائقة المالية. ولاختبار فرضيات البحث استخدم هذا البحث المنهج الوصفي التحليلي من خلال تصميم استبانة تحتوي على عدة محاور لقياس أهمية التحليل المالي في عملية اتخاذ القرار. وتم توزيعها على المديرين العامين والمديرين الماليين والمحاسبين الرئيسيين والمحللين الماليين لعدد 33 شركة غير مالية، وتم استلام 74 رد منهم. وأظهرت النتائج أن هناك تأثيراً إيجابياً مهماً لاستخدام تحليل النسب المالية (السيولة، والملاءة، والربحية، والنشاط) في عملية اتخاذ القرار. و تحليل القوائم المالية لـ 33 شركة غير مالية مدرجة للأعوام من 2019 إلى 2022 لفحص قوة التنبؤ بالضائقة المالية باستخدام نموذج Altman Z Score، وحساب النسب المالية (السيولة والملاءة والربحية والنشاط) مما أدى إلى 512 ملاحظة. وأظهرت النتائج أن النسب المالية (السيولة والملاءة والنشاط) لها تأثير كبير في القدرة على التنبؤ بالضائقة المالية في الشركات الفلسطينية غير المالية المدرجة. ومع ذلك، لا توجد علاقة مهمة بين مؤشرات الربحية والضائقة المالية. وتم إجراء التحليلات الإحصائية اللازمة لاختبار الفرضيات باستخدام برنامج التحليل الإحصائي SPSS واستخدام البرنامج الإحصائي (EViews) لتطبيق كافة الأساليب الإحصائية وطرق القياس. الكلمات المفتاحية: التحليل المالي، النسب المالية، الضائقة المالية، عملية اتخاذ القرار