

The Impact of Financial and Non-Financial Information on Investment Decision-Making in the Jordanian Business Environment

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Abstract: This study aimed to examine the impact of both financial and non-financial information on investment decision-making in the Jordanian business environment. To achieve the study's objectives, a hypothesis was formulated and tested using a descriptive analytical methodology based on a questionnaire distributed to investors, financial analysts, and brokerage firms in the Amman Stock Exchange. The sample consisted of 180 respondents distributed across 27 brokerage companies. Statistical significance was found for the impact of financial information on investors' decisions, while no significant effect was found for non-financial information according to the surveyed sample. This led to the rejection of the study's hypothesis that investors rely on both financial and non-financial information in making their investment decisions. The study recommended increasing attention to financial reports in general and interim reports in particular due to their significant impact on investment decisions.

Keywords: Financial information, non-financial information, Decision-making.

1 Introduction

Accounting as an information system performs two fundamental tasks: recording financial transactions and restructuring the data by translating financial indicators into relevant information that helps interested parties in making and formulating their investment decisions (Al-Shahadah et al., 2023). For accounting information published in financial reports to be useful to users, including investors, it must possess the qualitative characteristics specified by the Financial Accounting Standards Board (FASB), namely relevance and reliability (Christensen et al., 2015). The results of previous studies conducted on capital markets have confirmed that non-financial information not published in financial statements has an impact on the decision-making process among participants in financial markets, and this information is no less important than the financial information contained in the published financial statements (Fizza & Qaisar, 2015). This was also confirmed by economic literature when discussing the factors affecting capital market efficiency, considering that both historical accounting information and non-financial predictive information affect the decision-making process (Nurbach et al., 2019). Hence, this study was conducted to shed light on and analyze the extent to which financial and non-financial information impact investment decision-making for investors dealing in financial markets.

2 Research Problem

Investment decisions are made based on financial and non-financial information, including historical, actual, standard, and future information, as investors in financial markets use the information and indicators contained in published financial statements as indicators in formulating decision models (Al-Shahadah et al., 2023). It is found that the indicators reflected in published financial statements reflect organizational performance through items that can be expressed in monetary terms while ignoring many items that management cannot express in monetary terms (Christensen et al., 2015). This has led to the importance of reconsidering performance evaluation systems that rely on financial measures by adding non-financial performance measures that can reveal not just the financial aspect but all organizational activities (Christensen et al., 2015). Based on the above, the research problem can be formulated through the following question:

Do investors in the Amman Stock Exchange base their investment decision-making on financial and non-financial information?

3 Theoretical Framework and Previous Studies

First: Interim and Sectoral Financial Statements

Financial statements are defined as general comprehensive reports (Over-All Reports) about the activities of a project, its financial position, and the results of its operations as a single unit (Ibtihal et al., 2022). Interim reports are considered an important source of information, given the characteristics they possess (relevance and timeliness) which are considered among the qualitative characteristics of accounting information. They enable administrators, lenders, and investors to make decisions and follow up on the implementation of their investment and credit plans or correct errors (Yurisandi & Puspitasari, 2015). This information in interim reports helps achieve the appropriate price (both quantity and quality) for securities listed on the stock exchange (Fizza & Qaisar, 2015). The purpose of interim reports is to provide a quick update on a set of annual financial activities, focusing on new events and circumstances, and not repeating information previously disclosed (Al-Shahadah et al., 2023).

Due to the challenges faced by companies, including variations in their growth rates from year to year and the lack of suitable investment opportunities, companies have expanded their operations through multiple business sectors or branches in different geographical locations to take advantage of available opportunities. It has been found that aggregate financial data is no longer sufficient for its users, and there is an urgent need to obtain more detailed financial information, known as sectoral reports (Nurbach et al., 2019). These are defined as dividing companies into parts or sectors and disclosing financial information for each sector (Ibtihal et al., 2022). The importance of disclosing sectoral information stems from the general importance of disclosure, but in recent years, interest in sectoral information has increased due to its informational content. The presentation of such information may affect stock prices in the market and helps make better decisions and evaluate company performance (Yurisandi & Puspitasari, 2015).

Second: Limitations of Financial Reports and Their Indicators

1. **Limitations of Financial Reports:** Financial statements are among the important means of communication between management and external parties interested in the organization. However, there are some limitations that reduce their effectiveness. Among these limitations are (Afolabi & Oluseye, 2013): The purchasing power of money is considered one of the important assumptions on which financial statements are prepared. Financial statements can also be prepared for historical events and operations that occurred during the period, though this can be overcome by applying the fair value standard (Christensen et al., 2015). Additionally, there are limitations related to the use of personal judgment and estimation in preparing these statements (Ibtihal et al., 2022), as well as limitations on items that are not recorded in accounting. The limitations in accounting theory and the development occurring in accounting perspective, especially in accounting concepts, has led to this system not being able to record all events of the organization (Rajgopal & Venkatachalam, 2011).

The flexibility in choosing accounting methods and policies has also caused problems due to the multiplicity of generally accepted alternatives for treating the same accounting problem, giving room for manipulation in these results at the expense of the external user (Neha, 2020). Conservatism is a policy that allows for choice between alternatives that results in reducing profits in the income statement and reducing asset values on the balance sheet while maximizing liabilities (Yurisandi & Puspitasari, 2015).

In general, the Financial Accounting Standards Board (FASB) has added to the previous qualitative characteristics accounting policies and rules that are accounting determinants, namely (Fizza & Qaisar, 2015): cost-benefit and materiality. Despite the existence of all these limitations and determinants, financial statements remain an essential source of information due to the lack of alternatives, and decision-makers find them suitable for building decision models as they see fit (Ersa et al., 2020).

2. **Financial Report Indicators:** Profitability and its indicators are considered fundamental goals necessary for a company's survival and continuity and are goals sought by shareholders. Profitability indicators are used to evaluate a company's ability to generate profits by comparing expenses with revenues and other costs incurred during a specific period (Neha, 2020). They are also an essential tool for measuring management efficiency and the efficient use of available resources (Alshehadeh et al., 2020). Some examples of profitability indicators include net profit margin, gross profit margin, return on assets, return on shareholders' equity, return on invested capital, and earnings per share (Al Omari et al., 2017).

3. **Liquidity and Its Indicators:** Are defined as the ability of current assets to convert into liquid cash sufficient to meet current liabilities on their due dates (Alshehadeh, 2021). Liquidity indicators seek to measure a company's capacity to pay its short-term debts using current assets (Chowdhury et al., 2018). The primary liquidity indicators are the current Ratio, Liquid or Quick Ratio, Cash Ratio, Working Capital, Defensive Internal Ratio, No-Credit Interval, and Operating Cash Flow (Al Omari et al., 2017).

4. **Financial Leverage Indicators (Debt Leverage Ratios):** Financial leverage is an automatic process that results in increased profit because of financing part of the organization's operations with long-term debt, provided that the return on investment in the operations is greater than the financing burdens (interest) (Neha, 2020). Suppose leverage is the positive aspect of borrowing. In that case, the risk is its negative aspect, which appears when the company achieves a return on investment in its operations less than the interest rate (Alshehadeh et al., 2020). The degree of risk

and the degree of financial leverage thus give the financial analyst an idea about the financing structure of the company and its dependence on internal or external financing sources (Alshehadeh, 2021). In general, the less a company relies on debt to finance its assets, the less risk it faces because interest payments on it led to the depletion of the company's resources and cash liquidity necessary for the operation of its projects (Nurbach et al., 2019). Investors prefer to invest in companies with little debt; this may be an indicator of the favourable status the company enjoys in terms of cash liquidity (Neha, 2020).

5. **Activity Indicators:** Address the company's ability to effectively manage assets of all types and the company's effectiveness in generating revenues from operations (Nurbach et al., 2019). Activity rates are considered one of the basic components of enterprise profitability. However, profit results from several essential factors, the most important of which is the speed of capital turnover and asset turnover (Chowdhury et al., 2018). The set of activity indicators aims to measure the degree of efficiency of the company in managing its assets or a specific group of assets, such as fixed assets, current assets like inventory, or accounts receivable, which is the company's core activity to obtain income from operations (Al Omari et al., 2017). They are also known as Asset Management Ratios because they measure the extent of management efficiency in using its assets to produce the most outstanding amount of goods and services (Nurbach et al., 2019). Perhaps the most widely applied activity ratios in financial analysis are turnover rates. These ratios are Assets Turnover, Working Capital Turnover, Inventory Turnover, Receivables Turnover, and Payables Turnover.

6. **Market Indicators:** Are essential to company management for measuring the impact of company performance on everyday stock prices in the market (Nurbach et al., 2019). Since the goal in financial management is to maximize shareholder value by maximizing the market value of the share, these ratios include the price-earnings Ratio, Market Price (MP)/Book Value (BV), Dividend Yield, Stock Turnover, and Dividends per Share (Ihab et al., 2023).

Third: Non-Financial Indicators and Their Impact on Investment Decision-Making

Reliance on non-financial indicators reduces decision-makers focus on short-term financial performance, such as revenues because non-financial indicators measure fundamental performance-related aspects, such as quality and customer satisfaction, that the company undertakes over the long term. The financial benefits of these long-term changes may not appear in short-term returns. Still, if there is a company strategy that strengthens non-financial procedures, this usually indicates the formation of future economic value (Afolabi & Oluseye, 2013).

Scientific management is based on the rule that says, "What cannot be measured cannot be managed." From this standpoint, it is not possible to numerically measure the extent to which many non-financial elements contribute significantly to creating value for the organization (Rajgopal & Venkatachalam, 2011). For example, what is the value that a good manager (human resource) has contributed to the organization's net profit? The answer to this question cannot be given in numbers. Still, qualitative descriptions such as (large, medium, limited) can be used, or a correlational relationship can be found between net profit and the manager (Ersa et al., 2020).

Similarly, other non-financial elements, in most cases, are represented in the company's social performance, social benefits, environmental performance benefits, and company costs (Neha, 2020). In general, based on the financial statements with the data contained therein, along with non-financial elements, correlational relationships can be established to derive indicators of a non-financial nature used in the decision-making process (Ihab et al., 2023). From another perspective, there should be a cause-and-effect relationship between all the mentioned elements and the return on capital employed (a financial indicator), such as increased customer

transactions leading to an increase in earnings per share (a financial indicator), or service quality and share customization as causes of customer satisfaction (a non-financial indicator) (Ibtihal et al., 2022).

Non-financial performance indicators can be qualitative (Qualitative) or objective quantitative (Quantitative) measures. The criterion for differentiating between them is not whether they are based on facts or not, as both types should be based on facts. Subjective measures are not built on emotions or personal feelings (Fizza & Qaisar, 2015). It can be said that objective measures have three characteristics: verifiability, impartiality, and honest presentation (Ihab et al., 2023). Subjective measures, on the other hand, are often described as descriptive because they deal with the nature of things, and assessment may differ from one person to another depending on the beliefs and judgment of the state of nature (Rajgopal & Venkatachalam, 2011).

Non-financial performance indicators can also be leading or lagging. Niven explains that lagging indicators, such as customer satisfaction, usually measure historical or past performance. Although these indicators are objective and the related data can be obtained easily, they do not possess predictive ability. Leading indicators, however, are performance drivers that lead to achieving lagging indicators and are usually used to measure processes and activities (Ibtihal et al., 2022). In addition, there are Key Performance Indicators, which are measures that guide the organization toward achieving its goals and help it determine its progress toward these goals (Afolabi & Oluseye, 2013).

4 Research Methodology

The study relied on the descriptive analytical methodology to achieve its objectives, which are to determine the impact of financial and non-financial information on investment decisions. This study consists of two aspects: a theoretical aspect, in which scientific ideas related to the topic were addressed through books, periodicals, and academic theses, with the aim of building the theoretical framework for the study, and a field aspect, which was addressed through a questionnaire distributed to investors, financial analysts, and brokerage firms in the Damascus Securities Exchange.

1. Research Hypothesis

There is a statistically significant effect at the level of significance ($\alpha \leq 0.05$) of financial and non-financial information on investment decision-makers in the Amman Stock Exchange.

2. Study Population and Sample

This study was conducted on the Amman Stock Exchange. The study population is represented in the following record, which shows the distribution of the study population. A sample of 180 questionnaires was distributed to them as follows:

Table (1): Distribution of Sample Members by Profession According to Investment Activity Nature.

Profession	Investment Activity Nature	Percentage	Multiple-time Speculator	Total	Limited-time Speculator
	Specialized				

	Count		Count	Percentage	Count
Financial Analysts	82	51%	0	0%	0
Financial Brokerage Company Manager	18	11%	0	0%	0
Investors	60	38%	10	100%	10
Total	160	100%	10	100%	10

3. Reliability of the Study Tool

The reliability of the study tool was verified through the Cronbach Alpha coefficient to determine the degree of internal consistency of the items included in the study tool. The Cronbach Alpha coefficient was 0.85, as shown in the following table, noting that the minimum acceptable value for this coefficient is 0.60. This indicates that the tool has a high degree of reliability. The SPSS (v. 27) program was used for this purpose.

5 Data Analysis and Hypothesis Testing

To analyze the trends and directions of the study population members and to understand the extent to which they rely on financial and non-financial information in making their investment decisions, the arithmetic mean, and standard deviation were calculated for responses to the items related to this hypothesis, as shown in the following table:

Hypothesis Testing: To verify the validity of the hypothesis, multiple regression analysis was used, as shown in the following table:

Table (2): Results of Multiple Linear Regression Analysis Between Financial and Non-Financial Information on Investment Decision-Making in the Jordanian Business Environment

Dependent Variable	Correlation Coefficient (R)	Coefficient of Determination (R ²)	F Value	Significance Level (Sig)	Independent Variable	Beta	Standard Error	Calculated T	Significance Level (Sig)
Decision-Making	0.371	0.297	36.561	0.000	Constant	0.983	0.276	13.564	0.012
					Financial Information	0.359	0.854	9.186	0.004
					Non-Financial Information	0.763	0.367	12.937	0.568

Table (2) shows the multiple linear regression test to examine the effect of financial and non-financial information on investment decision-making in the Jordanian business environment. Looking at the correlation coefficient value R, it was found to

be 0.371, indicating the strength of the relationship between the independent variables collectively and the dependent variable. The coefficient of determination R^2 was 0.297, indicating that 29.7% of the variation in the dependent variable is explained by the independent variables collectively. The calculated F value was 36.561 with a probability value of 0.000, indicating that the regression model is statistically significant, as the regression equation is not equal to zero. Therefore, it can be concluded that there is at least one statistically significant variable in the regression model, leading to the rejection of the null hypothesis and acceptance of the alternative hypothesis: "There is a statistically significant effect at the level of significance ($\alpha \leq 0.05$) of financial and non-financial information on investment decision-makers in the Amman Stock Exchange."

6 Conclusions

The study population members primarily rely on financial information from company financial reports when making their investment decisions. This reliance results from the belief that company financial reports in the Jordanian environment do not include non-financial performance indicators.

Furthermore, the study population does not primarily rely on non-financial information in making their investment decisions. In fact, the analysis showed that (62%) of investors in the Amman Stock Exchange rely on financial information when combined with non-financial information in making their decisions, with most of this percentage attributable to financial information. Additionally, external information issued by various credit rating agencies has an essential impact on investment decision-making. Finally, the information contained in published financial statements is inadequate for making investment decisions due to the lack of adoption of international financial reporting standards in their preparation.

7 Recommendations

First, there is a need for legislation at the level of the Amman Stock Exchange requiring the publication of interim financial reports for relatively short periods, audited by an external auditor, due to their importance in making investment decisions because of the recency of the information. Secondly, full compliance with international standards for preparing financial statements and reports is necessary to enable users to extract financial indicators that represent relative importance for making their investment decisions. Lastly, full compliance with international standards for preparing financial statements and reports is necessary so that companies' financial reports in the Jordanian environment include non-financial performance indicators.

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