

## The Impact of Sustainability Reporting Disclosure on the Information Content of Earnings Considering the Role of Competition in the Market

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### Abstract

**Objectives:** This study aims to examine the effect of sustainability reporting disclosure on the information content of earnings, with a focus on the moderating role of market competition.

**Methodology/Design/Approach:** A sample of 146 firms listed on the Tehran Stock Exchange from 2014 to 2023 was selected using the systematic elimination method. The study employed a multiple linear regression model based on panel data to test the research hypotheses. The information content of earnings was assessed, and a disclosure checklist was used to evaluate the extent of sustainability reporting.

**Findings:** The results indicate a direct and significant relationship between sustainability reporting disclosure and the information content of earnings. Additionally, market competition significantly influences this relationship, enhancing the impact of sustainability disclosure on earnings informativeness.

**Innovation:** This study contributes to the literature by providing empirical evidence on how sustainability disclosure and market competition jointly shape the quality and informativeness of financial reports. The findings highlight the growing importance of sustainability performance in enhancing the transparency and credibility of earnings, especially in competitive markets. The results emphasize that improved disclosure practices, supported by a competitive environment, can enhance the value relevance of accounting information for stakeholders.

**Keywords:** Sustainability Reporting Disclosure, Earnings Information Content, Market Competition..

## 1. Introduction

Members of the capital market are exposed daily to numerous information signals, such as dividend announcements, which require careful evaluation of their quality. When investors face uncertainty about the future prospects of and the overall economy, or lack sufficient information regarding future cash flows, processing these signals becomes challenging (Rostami et al., 2023). Under such uncertainty, receiving information signals like accounting earnings announcements can lead investors to revise their prior beliefs about the future state of firms and the market. Consequently, the information content of financial statements plays a crucial role in reducing this uncertainty (Arab Salehi et al., 2018).

The ultimate goal of accounting operations is to provide accurate and reliable information to investors and other users. Among the key components of financial reports, net profit holds significant influence over users' future decisions. However, a critical question arises: does the information content of reported profits fully convey all relevant facts to users? Addressing this question necessitates investigating factors that affect the quality of corporate information disclosure, including the extent of sustainability reporting (Maloline, 2019; Al-Shaer, 2020).

Sustainability reporting encompasses the environmental, social, and economic achievements of a firm and demonstrates how a business incorporates these considerations into its development plans. One important aspect of such reporting is the product lifecycle assessment. Sustainability reports assure shareholders and stakeholders that non-financial risks and opportunities related to the sector's activities are acknowledged and managed. Organizations are expected to identify and address these diverse dimensions according to systematic frameworks (Das et al., 2024). Guided by international standards, sustainability reporting has gained prominence to the extent that it is mandated by legislation in several countries.

The concept of sustainability has emerged over the past century as a critical theme in corporate activities,

highlighting businesses' obligations to undertake fundamental reforms aimed at creating a fair world—one that ensures prosperity and well-being for all while preserving the environment and cultural heritage for future generations (Trol et al., 2020). Firms that demonstrate greater willingness and commitment to disclosing comprehensive sustainability performance are likely to exhibit higher commitment to transparent and high-quality information disclosure (Maloline, 2019; Al-Shaer, 2020). This commitment can influence the quality of information received by investors. Accordingly, the present study aims to examine whether sustainability reporting disclosure affects the information content of a firm's earnings.

Competitiveness is defined as a firm's economic capability to maintain or expand its market share in domestic and international markets. According to Porter (1990), product market competition influences managerial decisions and represents a significant determinant of corporate profitability. The competitive literature suggests that intense competition motivates managers to improve efficiency, as competitive forces quickly eliminate underperforming managers. Furthermore, product market competition functions as an external corporate governance mechanism, supervising management and mitigating agency costs (Demouri & Izadi, 2019). Competition among firms encourages firms to enhance their services and information quality to attract and retain investors, thereby potentially increasing the informational content of earnings when combined with sustainability disclosure (Rahman et al., 2024). Hence, the second objective of this study is to investigate whether the interaction between market competition and sustainability disclosure affects the informational content of firms' earnings.

In recent years, the management and transparency of corporate performance reports have gained increasing importance. Sustainability reports, which reflect a firm's economic, social, and environmental performance, serve as tools for building stakeholder trust. The quality of sustainability reporting is therefore critical for organizations seeking to highlight

their commitment to sustainable development. Beyond enhancing sustainability performance, these reports can improve a firm's reputation, facilitating higher rankings in international markets and integration into global transactions (Hekmat et al., 2025). Such improvements may increase the informational content of earnings available to users.

Earnings information content refers to the extent to which earnings data is utilized by financial information users in their decision-making processes. It reflects whether accounting earnings provide meaningful and useful insights to investors and other stakeholders. Given that earnings are a key indicator of corporate performance and a basis for financial decisions, their presentation must be clear and informative. The informational content of earnings assists investors in assessing past performance and forecasting future results. Stable and predictable earnings reduce investment risk, highlighting the value of focusing on earnings information content to enhance financial reporting quality. This attention promotes transparency, accountability, and improved decision-making by investors, underscoring its importance.

Given the inconclusive evidence both domestically and internationally regarding the impact of sustainability reporting on earnings information content, this study addresses an existing research gap by integrating these themes in a novel way. The structure of the study proceeds as follows: first, the theoretical framework and hypotheses are developed; next, the research methodology and operational definitions of variables are presented; finally, the empirical findings and conclusions are discussed.

## Theoretical Foundations and Research Background

In conditions of uncertainty, the future prospects of firms, institutions, and capital markets are unclear. In such environments, the arrival of information signals from corporate reports helps reduce these ambiguities, thereby influencing investors' beliefs and decisions. Pastor and Veronesi (2009) emphasize that uncertainty

is an inherent characteristic of financial and investment markets. Generally, positive information transforms potential opportunities into realized gains (Arab Salehi et al., 2018). Earnings, as a fundamental element of financial statements, contain informational content when they influence investors' decisions, particularly regarding the prediction of stock returns. The informational content of earnings is often assessed by examining the relationship between earnings and stock returns; the greater the extent to which earnings explain stock prices or returns, the higher their informational value and relevance. This approach traces back to the seminal study by Ball and Brown (1968).

The informational content of an accounting variable pertains to its usefulness and extent of application in financial decision-making processes. Owlsen and Feltham (1995) argue that reported earnings often lack strong explanatory power due to their low information content and limited reliability. Transparency is a critical attribute of financial statements that confers information content; such transparency involves qualities like availability, reliability, comprehensiveness, relevance, and timeliness (Banimahd et al., 2016). Hendriksen and Breda (1992) define information content as data capable of exerting a significant impact, emphasizing that information should reduce uncertainty and convey a message valuable enough to justify its cost of acquisition. Furthermore, information must have the potential to influence decision-making; a message qualifies as containing information only if it causes the recipient to revise decisions (Namazi & Zare, 2004). Specifically, the informational content of reported net profit can be measured by changes in stock price or abnormal returns occurring around the announcement date of net profit (Scott, 2007).

Corporate sustainability represents a holistic business approach where organizations aim to create long-term value for all stakeholders. This approach extends beyond environmentally friendly strategies to include social, cultural, and economic dimensions alongside environmental considerations. Corporate

sustainability comprises all strategies and activities that satisfy present stakeholders' needs while preserving the resources required by future generations. It is a broader concept than corporate social responsibility (CSR), encompassing elements of CSR, corporate citizenship, and corporate governance. According to this approach, firms of all sizes and operational scales are urged to incorporate social and environmental impacts into their activities, thereby removing long-term economic constraints through innovative solutions. A sustainable economy demands businesses to operate differently from today by generating more value with fewer resources. Consequently, organizations pursue extensive reporting to meet the diverse interests of stakeholders, whose social, environmental, and economic concerns define organizational success (Feng, Hassan, & Alamer, 2020).

The disclosure of sustainability reporting is underpinned by several foundational theories that provide its conceptual basis, notably stakeholder theory and legitimacy theory. Stakeholder theory asserts that firms must account for the interests and impacts of their activities on various stakeholder groups in their decision-making processes, thereby demonstrating commitment to these groups. Legitimacy theory posits that organizations must maintain social legitimacy by aligning their operations with societal values and expectations. Social and environmental reporting, therefore, functions as a mechanism through which firms exhibit conformity with social norms and ethical standards, reinforcing their broader responsibilities beyond financial performance (Vahiuni et al., 2024). These theories collectively underscore transparency and accountability as pillars of contemporary corporate governance, establishing social and environmental accounting as integral to corporate sustainability strategies.

Signaling theory further enhances understanding of social and environmental accounting by explaining how firms utilize sustainability reporting to signal commitment to responsible practices. Through these

disclosures, firms aim to influence public perception and strengthen their credibility as sustainable entities (Epstein, 2018). Accordingly, the disclosure of sustainability reporting impacts the information content of accounting reports, especially corporate earnings. Based on this rationale, the first hypothesis of this research is formulated as follows:

**H1:** Disclosure of sustainability reporting affects the information content of firms' earnings.

A market is both a place and a situation where buyers and sellers engage in the exchange of goods and services. Among the various factors influencing market dynamics, competition plays a significant role in shaping corporate policies. Market power refers to a firm's ability to control the price and production level of its products. Based on the review of prior studies, it is evident that competition affects corporate policies differently according to three main theories: consequence, substitution, and hunting theories.

Strategic management literature emphasizes that in today's highly competitive environment, firms must secure competitive advantages to survive and thrive. This competitive advantage essentially reflects a firm's market power. Product market power is defined as a firm's capacity to set prices for its products rather than being a price taker. Furthermore, market competitiveness fosters greater effectiveness and cultivates a culture of good governance. This is achieved through enhancing managerial efficiency, promoting transparency in decision-making, elevating managerial accountability, reducing risks stemming from poor investment decisions, and ensuring market prices reflect true economic values (Mohaghegh Kia, 2021).

Competition within markets can establish a structured order among firms. Firms operating in highly competitive markets tend to provide higher quality information to attract investors and demonstrate their commitment to safeguarding stakeholders' interests. This increased transparency and information quality can positively influence the quality of financial reporting (Amjad Iqbal et al.,

2017). Accordingly, the following hypothesis is proposed:

**H2:** Competition in the market affects the relationship between the disclosure of sustainability performance and the information content of earnings.

## Literature Review

Numerous recent studies have explored the relationship between sustainability reporting, financial disclosure quality, and corporate financial performance, highlighting various mechanisms and contextual factors that influence this interplay.

Hekmat et al. (2025) examined the impact of sustainability reporting disclosure and the comparability of accounting information on earnings continuity. Their study emphasized that sustainability reporting aids firms in identifying sustainability risks and managing earnings, while also improving their international rankings and interactions. Additionally, comparability in accounting information facilitates stakeholders' ability to discern similarities and differences in financial data, thus supporting more informed decision-making and contributing to the continuity of earnings.

Ferdows et al. (2025) found a positive relationship between Environmental, Social, and Governance (ESG) performance and financial disclosure quality (FSDQ). Their analysis highlighted that managerial competence and a strong organizational culture strengthen this relationship. Furthermore, they identified that firms with high-quality accounting practices exhibit better financial report readability, whereas complexity in reporting diminishes this effect. The robustness of these findings was confirmed through advanced econometric techniques including Heckman's two-step estimation.

Ali et al. (2024) explored the complex relationship between sustainability disclosure and earnings management. Their findings underscore the significance of internal factors such as ownership structure and corporate governance, as well as external factors including information asymmetry and corporate credibility. This study extends stakeholder

and institutional theories by providing a comprehensive framework that integrates sustainability and financial practices, offering practical insights for researchers and practitioners.

Zhou et al. (2024) investigated sustainability disclosure in the energy sector across Belt and Road Initiative countries, with a focus on the moderating role of ownership concentration. Their results revealed positive associations between environmental and social disclosures and financial performance, while corporate governance disclosure showed no significant effect. Ownership concentration was found to positively moderate the relationships involving environmental and social disclosures, suggesting that firms in developing countries should prioritize these areas to sustain financial performance.

Yousefizadeh and Fakhari (2024) identified twenty corporate characteristics influencing sustainability reporting through confirmatory factor analysis. They categorized sustainability reporting into eight dimensions—including firm size, board composition, ownership, regulatory and governance structures, industry strategy, profitability, and leverage—and noted a reciprocal relationship between sustainability disclosure and return on equity.

In the Iranian capital market context, Pourgholami Dafchahi et al. (2023) reported a positive and significant relationship between sustainability disclosure quality and sustainability performance. However, they noted that the overall quality of sustainability disclosure remains low, limiting its effectiveness.

Rostami et al. (2023) analyzed the effect of auditor conservatism on the information content of earnings, finding that higher conservatism reduces the sensitivity of returns to reported profits. Importantly, they showed that comparability of accounting information amplifies this negative relationship.

Khalifeh Soltani and Alishahi (2022) focused on the relationship between sustainability disclosure and risk, revealing a significant negative association between sustainability disclosure and systematic risk. Their findings suggest that sustainability reporting

enhances brand transparency and credibility, thereby mitigating systematic risk.

Onsiview et al. (2020) emphasized that integrating corporate social reporting into financial performance assessment transforms sustainability into tangible value for stakeholders, suggesting that non-financial disclosures can have financial significance once controlling for other financial factors.

Jafari Jam et al. (2019) employed Resource-Based Perspective and Stakeholder Relationship Expectation theories to demonstrate a positive impact of sustainability information disclosure on financial performance and corporate value, highlighting stakeholder compliance as a key driver.

Kashanipour et al. (2018) investigated the relationship between sustainability information disclosure and financial reporting quality, revealing that firms engaging in earnings management use sustainability reporting to compensate for lower financial report quality. They also found positive associations between conservatism, accrual quality, and sustainability disclosure.

Lastly, Hannon et al. (2018), drawing on stakeholder, legitimacy, signaling, and political economy theories, found that environmental performance and disclosure significantly improve financial performance. Their study controlled for firm size and growth, and focused on manufacturing firms in Indonesia.

## Research Methodology

The present study is applied in nature and employs a causal-correlational research design. The statistical population consists of all firms listed on the Tehran Stock Exchange (TSE) over the period from 2014 to 2023. The sampling criteria were established to ensure comparability of financial information at the fiscal year-end in March. Specifically, the sample includes firms that have maintained a consistent financial reporting period throughout the entire 10-year study timeframe and have complete data available for the selected variables. Firms classified within the banking, insurance, and investment sectors were excluded due

to their distinct regulatory and financial reporting frameworks. Following these criteria, a final sample of 146 firms was selected.

For data analysis, the study utilized panel data techniques, employing the combined data method to leverage both cross-sectional and time-series dimensions. Statistical tests and hypothesis evaluations were conducted using EViews 12 software, with robust standard errors applied to address potential heteroscedasticity and autocorrelation in the panel data models.

## Operational Definitions of Research Variables

### Dependent Variable: Profit Information Content

The dependent variable of the research is the information content of earnings. According to the studies by Setayesh and Ebrahimi (2012), Mehr Azin et al. (2012), Firth et al. (2007), Varfield et al. (1995), and Rostami et al. (2023), the earnings response coefficient (the relationship between earnings and returns) is used to measure it. The difference between the profit of the current period and the previous period, divided by the deflator (total assets of the first period), has been used.

Abnormal returns (AR):

$$AR_{i,t} = R_{i,t} - R_{m,t}$$

Actual stock return ( $R_{i,t}$ ): The difference between the stock price at the beginning of the period and the stock price at the end of the period, with the effects of cash dividends and capital increase.

Market Return ( $R_{m,t}$ ): The market return is equal to the index of the whole period minus the index of the whole of the previous period divided by the index of the whole of the previous period.

Abnormal Profit (Profit Variations) ( $\Delta PI$ ): Profit for the period minus the profit of the previous period divided by the total assets.

### Independent Variable: Sustainability Reporting Disclosure (RS)

Following the research of Hekmat et al. (2025), to evaluate the quality of sustainability reporting disclosure, the research checklist of Rahmani and Mahmoudkhani (2021) was used with the necessary adjustments. Based on this checklist, thirteen main components of sustainability reporting were identified, which include generalities, organizational health and accountability, leadership structure, sustainable investment, information technology, compliance management, education and development, diversity, social inclusion and fair opportunities, employees, customers, corporate citizen activities, and the dimension of life, environment, and climate change. Inspired by the research of Khong et al. (2022), specific mathematical relationships were used to measure each of the mentioned components.

$$RS\_Economic = \sum (X_i / n_i)$$

$$RS\_Environment = \sum (X_i / n_i)$$

$$RS\_Social = \sum (X_i / n_i)$$

$$RS = RS\_Economic + RS\_Environment + RS\_Social$$

In order to measure the amount of disclosure of information related to economic, environmental, and social dimensions, a binary variable ( $X_i$ ) was defined. If the firm under study disclosed the criteria proposed in each of the mentioned dimensions, the value of the binary variable ( $X_i$ ) was considered equal to one and otherwise equal to zero (Hekmat et al., 2025).

### Moderating Variable: Market Competition (HHI)

Market competition in industries can be calculated by the Herfindahl-Hirschmann index. The Herfindahl-Hirschmann index measures the level of competitiveness in various industries so that if the value obtained from the median in the sample is higher, the number will be 1, and if not, the number will be zero.

$$HHI = \sum_{i=1}^n (S_i/S)^2$$

Where:

HHI: Herfindahl-Hirschmann Index

SI: Firm Sales Revenue

S: Total sales revenue of firms in the firm's industry

n: The number of firms in the industry (Tariverdi et al., 2017).

### Research Control Variables

**SIZE:** The natural logarithm of total assets.

**boardind:** The ratio of non-obligated members of the board of directors to the total members.

**Liquidity:** The ratio of cash to total assets.

**LEV:** Total debt divided by total assets.

**Growth:** The sales of the period, minus the sales of the previous period, divided by the sales of the previous period.

**Age:** The natural logarithm of the year the firm was established from the year in question.

### Research Regression Models

Regression Model to Test the First Hypothesis

$$\begin{aligned} AR_{it} = & \beta_0 + \beta_1 \Delta NI_{it} + \beta_2 \Delta NI_{it} \times RS \\ & + \beta_3 \Delta NI_{it} \times SIZE_{it} \\ & + \beta_4 \Delta NI_{it} \times Board\ Ind_{it} \\ & + \beta_5 \Delta NI_{it} \times Cash_{it} \\ & + \beta_6 \Delta NI_{it} \times LEV_{it} \\ & + \beta_7 \Delta NI_{it} \times growth_{it} \\ & + \beta_8 \Delta NI_{it} \times Age_{it} + \varepsilon_{it} \end{aligned}$$

Regression Model to Test the Second Hypothesis

$$\begin{aligned} AR_{it} = & \beta_0 + \beta_1 \Delta NI_{it} + \beta_2 \Delta NI_{it} \times RS \\ & + \beta_3 \Delta NI_{it} \times HHI \\ & + \beta_4 (\Delta NI_{it} \times RS \times \Delta NI_{it} \times HHI) \\ & + \beta_5 \Delta NI_{it} \times SIZE_{it} \\ & + \beta_6 \Delta NI_{it} \times Board\ Ind_{it} \\ & + \beta_7 \Delta NI_{it} \times Cash_{it} \\ & + \beta_8 \Delta NI_{it} \times LEV_{it} \\ & + \beta_9 \Delta NI_{it} \times growth_{it} \\ & + \beta_{10} \Delta NI_{it} \times Age_{it} + \varepsilon_{it} \end{aligned}$$

## Research Findings

The findings of the research include descriptive and inferential statistics, which are first presented in Table 1 of descriptive statistics.

Table 1 shows the descriptive statistics of the research variables. As can be seen, the average financial leverage of the firm is 0.53, which shows that most of the data is around this point. The highest standard deviation is related to the disclosure of sustainability reporting (2.62), and the lowest is related to the firm's liquidity (0.044). The maximum and minimum amounts are also shown in the data.

According to the results obtained in Table 2, it can be seen that the significance level of the variables in the durability test is less than 5%, indicating that the

variables are manufacturable.

The results in Table (3) show that the significance level of the variance test in the two research models is less than 5%, indicating the presence of heteroscedasticity in the disturbance terms. Additionally, the significance level of the serial autocorrelation test in the research model is less than 5%, indicating the existence of serial autocorrelation in the model. In the final estimation of the model, the GLS command was used in Eviews software with the standard error correction tool. The significance level of the F-Limer test, being less than 5%, confirms the panel data model. Moreover, the Hausman test, with a significance level higher than 5%, confirms the appropriateness of the common effects model.

Table (1). Descriptive statistics of research variables

| Variable    | Mean  | Max   | Min    | Std.v |
|-------------|-------|-------|--------|-------|
| AR          | 0.26  | 4.46  | -1.38  | 1.14  |
| $\Delta$ NI | 0.041 | 0.45  | -0.35  | 0.12  |
| Rs          | 6.51  | 22.00 | 3.00   | 2.62  |
| HHI         | 0.49  | 1.00  | 0.0000 | 0.50  |
| SIZE        | 15.25 | 19.81 | 11.63  | 1.75  |
| Board ind   | 0.62  | 0.80  | 0.0000 | 0.18  |
| CASH        | 0.044 | 0.19  | 0.001  | 0.044 |
| LEV         | 0.53  | 0.99  | 0.099  | 0.20  |
| growth      | 0.38  | 1.60  | -0.38  | 0.45  |
| AGE         | 3.67  | 4.20  | 2.77   | 0.35  |

Table 2: Reliability Test of Quantitative Research Variables

| Variable    | Test Statistics | Sig    | Results    |
|-------------|-----------------|--------|------------|
| AR          | -23.8817        | 0.0000 | Stationary |
| $\Delta$ NI | -12.5445        | 0.0000 | Stationary |
| Rs          | -9.84307        | 0.0000 | Stationary |
| HHI         | -4.68783        | 0.0000 | Stationary |
| SIZE        | -11.0301        | 0.0000 | Stationary |
| Board ind   | -2.24191        | 0.0000 | Stationary |
| CASH        | -14.2589        | 0.0000 | Stationary |
| LEV         | -10.3993        | 0.0000 | Stationary |
| growth      | -6.93472        | 0.0000 | Stationary |
| AGE         | -95.2573        | 0.0000 | Stationary |

Table (3): Results of Classical Regression Presupposition Tests

| Test Model               | Test Statistics | Sig    |
|--------------------------|-----------------|--------|
| White(Model 1)           | 91.05           | 0.0000 |
| Breusch-Godfrey(Model 1) | 147.8           | 0.0000 |
| F-Limer (Model 1)        | 118.77          | 0.0000 |
| HausmanTest (Model 1)    | 10.83           | 0.21   |
| White(Model 2)           | 110.94          | 0.0001 |
| Breusch-Godfrey(Model 2) | 144.85          | 0.0000 |
| F-Limer (Model 2)        | 72.70           | 0.0000 |
| HausmanTest (Model 2)    | 11.65           | 0.20   |

Table 4, Testing the first hypothesis of the research

| $AR_{it} = \beta_0 + \beta_1 \Delta NI_{it} + \beta_2 \Delta NI_{it} \times RS + \beta_3 \Delta NI \times SIZE_{it} + \beta_4 \Delta NI \times Board\ Ind_{it} + \beta_5 \Delta NI \times Cash_{it} + \beta_6 \Delta NI \times LEV_{it} + \beta_7 \Delta NI \times growth_{it} + \beta_8 \Delta NI \times Age_{it} + \epsilon_{it}$ |        |         |             |        |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|-------------|--------|------|
| Variables                                                                                                                                                                                                                                                                                                                           | Coef   | Std. ev | T statistic | Sig    | VIF  |
| $\Delta NI$                                                                                                                                                                                                                                                                                                                         | 0.83   | 0.046   | 17.8        | 0.0000 | 1.03 |
| $RS \times \Delta NI$                                                                                                                                                                                                                                                                                                               | 0.43   | 0.035   | 11.9        | 0.0000 | 1.06 |
| $SIZE \times \Delta NI$                                                                                                                                                                                                                                                                                                             | -0.067 | 0.058   | -1.14       | 0.25   | 1.05 |
| $Board\ ind \times \Delta NI$                                                                                                                                                                                                                                                                                                       | -0.71  | 0.69    | -1.03       | 0.30   | 1.06 |
| $CASH \times \Delta NI$                                                                                                                                                                                                                                                                                                             | 5.58   | 2.52    | 2.21        | 0.027  | 1.04 |
| $LEV \times \Delta NI$                                                                                                                                                                                                                                                                                                              | 1.47   | 0.50    | 2.90        | 0.003  | 1.12 |
| $growth \times \Delta NI$                                                                                                                                                                                                                                                                                                           | 0.61   | 0.26    | 2.33        | 0.019  | 1.02 |
| $Age \times \Delta NI$                                                                                                                                                                                                                                                                                                              | -0.43  | 0.22    | -1.93       | 0.053  | 1.03 |
| C                                                                                                                                                                                                                                                                                                                                   | -0.011 | 0.014   | -0.81       | 0.41   | -    |
| RES(-1)                                                                                                                                                                                                                                                                                                                             | -0.091 | 0.020   | -4.35       | 0.0000 | -    |
| Coef determination                                                                                                                                                                                                                                                                                                                  | 0.48   |         |             |        |      |
| Watson Durbin                                                                                                                                                                                                                                                                                                                       | 2.07   |         |             |        |      |
| F                                                                                                                                                                                                                                                                                                                                   | 136.23 |         |             |        |      |
| Sig                                                                                                                                                                                                                                                                                                                                 | 0.0000 |         |             |        |      |

Table (4) The results of the test of the first hypothesis of the research show that the disclosure of sustainability reporting, with a positive coefficient (0.43) and a significance level of less than 5% (0.0000), has a direct relationship with the informational content of earnings. Therefore, the first hypothesis of the research is not rejected at the 5% significance level. Also, the control variables of liquidity, financial leverage, firm age, and sales growth affect the dependent variable. The coefficient of determination of the model is 0.48, which shows that the independent and control variables in the model

explain 48% of the variation in the dependent variable. Additionally, the value of the Durbin-Watson statistic is 2.07, and since it falls between 1.50 and 2.50, it indicates that there is no strong autocorrelation among the residuals of the model. The collinearity statistic is less than 5, which shows there is no strong correlation between the research variables. The F-test statistic, with a significance level of less than 5%, indicates that the research model has a good fit.

Table 5, Testing the Second Research Hypothesis

| $AR_{it} = \beta_0 + \beta_1 \Delta NI_{it} + \beta_2 \Delta NI_{it} \times RS + \beta_3 \Delta NI_{it} \times HHI + \beta_4 (\Delta NI_{it} \times RS \times \Delta NI_{it} \times HHI) + \beta_5 \Delta NI \times SIZE_{it} + \beta_6 \Delta NI \times Board\ Ind_{it} + \beta_7 \Delta NI \times Cash_{it} + \beta_8 \Delta NI \times LEV_{it} + \beta_9 \Delta NI \times growth_{it} + \beta_{10} \Delta NI \times Age_{it} + \epsilon_{it}$ |        |        |             |        |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|--------|-------------|--------|------|
| Variables                                                                                                                                                                                                                                                                                                                                                                                                                                        | Coef   | Std.ev | T statistic | Sig    | VIF  |
| $\Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                                      | 0.81   | 0.046  | 17.5        | 0.0000 | 1.04 |
| $RS \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                            | 0.44   | 0.036  | 12.09       | 0.0000 | 1.08 |
| $HHI \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                           | 0.43   | 0.29   | 1.46        | 0.14   | 1.02 |
| $RS \times \Delta NI \times HHI \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                | 0.28   | 0.11   | 2.50        | 0.012  | 1.08 |
| $SIZE \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                          | -0.073 | 0.059  | -1.23       | 0.21   | 1.08 |
| $Board\ ind \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                    | -0.73  | 0.71   | -1.02       | 0.30   | 1.08 |
| $CASH \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                          | 6.30   | 2.52   | 2.94        | 0.012  | 1.05 |
| $LEV \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                           | 1.28   | 0.51   | 2.49        | 0.012  | 1.13 |
| $growth \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                        | 0.87   | 0.27   | 3.15        | 0.001  | 1.03 |
| $Age \times \Delta NI$                                                                                                                                                                                                                                                                                                                                                                                                                           | -0.37  | 0.23   | -1.58       | 0.11   | 1.04 |
| C                                                                                                                                                                                                                                                                                                                                                                                                                                                | -0.004 | 0.014  | -0.31       | 0.75   | -    |
| RES(-1)                                                                                                                                                                                                                                                                                                                                                                                                                                          | -0.090 | 0.021  | -4.31       | 0.0000 | -    |
| Coef determination                                                                                                                                                                                                                                                                                                                                                                                                                               | 0.49   |        |             |        |      |
| Watson Durbin                                                                                                                                                                                                                                                                                                                                                                                                                                    | 2.06   |        |             |        |      |
| F                                                                                                                                                                                                                                                                                                                                                                                                                                                | 116.20 |        |             |        |      |
| Sig                                                                                                                                                                                                                                                                                                                                                                                                                                              | 0.0000 |        |             |        |      |

Table (4) The results of the test of the second hypothesis of the research show that the interaction of market competition and disclosure of sustainability reporting, with a positive coefficient (0.28) and a significance level of less than 5% (0.012), affects the informational content of earnings. Therefore, the second hypothesis of the research is not rejected at the 5% significance level. Also, the control variables of liquidity, financial leverage, and sales growth affect the dependent variable. The coefficient of determination of the model is 0.49, which indicates that the independent and control variables in the model explain 49% of the variation in the dependent variable. Additionally, the value of the Durbin-Watson statistic is 2.06, and since it is between 1.50 and 2.50, it shows there is no strong autocorrelation among the residuals of the model. The collinearity statistic is less than 5, indicating no strong correlation among the research variables. The F-test statistic, with a significance level of less than 5%, shows that the research model has a good fit.

## Discussion & Conclusion

The present study seeks to trace the effect of sustainability reporting disclosure on the information content of earnings by considering the role of market competition. Financial statements are information tools used by beneficiaries and users in the capital market, and the quality level of information is of great importance for receiving accurate and complete data. This information provides value to users, which increases with improvements in the quality of these reports. One important factor influencing the enhancement of information quality in financial reports over the last decade has been firms' commitment to various aspects of corporate sustainability performance. The disclosure of sustainability reports can compel firms to provide higher-quality information and also reflect the firm's commitment to providing accurate information to stakeholders. As seen in the statistical results, the disclosure of sustainability reporting can increase the information content of earnings.

A sustainability report is a document published by a firm or organization detailing the economic, environmental, and social impacts caused by its daily activities. The report also communicates the organization's values, governance model, and the relationship between its strategies and commitment to a sustainable global economy. An increasing number of firms and organizations aim to make their operations sustainable and contribute to sustainable development. Sustainability reporting helps organizations measure and communicate their economic, environmental, social, and governance performance. Sustainability—the ability to sustain something over a long time or indefinitely—depends on performance in these four key areas. Systematic sustainability reporting enables organizations to measure the impacts they create or experience, set goals, and manage change. It is a key platform for informing stakeholders about performance and its impacts, both positive and negative.

To generate a sustainability report, organizations create a reporting cycle—a program of data collection, outreach, and responses. Their sustainability performance is continuously monitored, and data can be regularly provided to senior decision-makers to shape strategy, policies, and improve performance. Hence, sustainability reporting is a vital resource for managing change toward a sustainable global economy, combining long-term profitability with ethical behavior, social justice, and environmental care. The provision of transparent information across various aspects demonstrates the extent of the firm's commitment to stakeholder interests and thus improves the information content of reported earnings.

In a competitive market, firms strive to attract more customers and gain a larger market share by offering better and more differentiated products and services than their competitors. This competition benefits consumers, as firms seek to satisfy them, resulting in higher quality products at more affordable prices. Competition encourages firms to continuously improve and innovate their products and services to stay ahead of competitors. Ultimately, competition

motivates firms to provide more information about their products and services, helping consumers make more informed decisions.

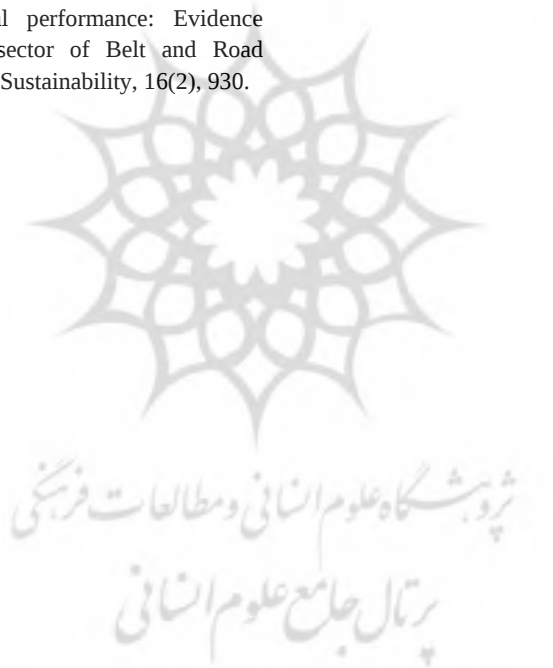
As the results of statistical tests show, the interaction between market competition and sustainability reporting factors affects the information content of firms' earnings. When firms face healthy competition, they attempt to attract investor oversight by providing accurate information to outperform competitors. Alongside sustainability reporting disclosure, this affects the informational content that firm profits convey to stakeholders. These results align with research by Hekmat et al. (2025) and Ferdows et al. (2025).

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