IJAAF; Vol. 9, No. 3, Summer 2025, Serial 32

Iranian Journal of
Accounting, Auditing & Finance

Ferdowsi University of Mashhad

Quarterly

RESEARCH ARTICLE

The Information Content of Sustainability Reporting of Companies in Iran's Capital Market with an Emphasis on its Quality

Shahnaz Mashayekh*, Mahnaz Beizaeinezhad

Department of Accounting, Faculty of Social Sciences and Economics, Alzahra University, Tehran, Iran, Email:

How to cite this article:
Mashayekh, S. and Beizaeinezhad, M. (2025). The Information Content of Sustainability Reporting of Companies in Iran's Capital Market with an Emphasis on its Quality. *Iranian Journal of Accounting, Auditing and Finance*, *9*(3), 17-32. doi: 10.22067/ijaaf.2025.46192.1481
https://ijaaf.um.ac.ir/article_46192.html

ARTICLE INFO

Article History
Received: 2024-11-06
Accepted: 2025-02-29
Published online: 2025-07-18

Abstract

The literature on corporate sustainability performance indicates that researchers have often focused on the individual dimensions of corporate sustainability performance. However, few studies have comprehensively measured the company's sustainability performance. In fact, many studies overlook the quality of sustainability reports, which can contain more information content. Therefore, this study investigates the information content of the sustainability reporting quality of listed companies in Iran. Examining 199 companies from 2014 to 2022, the study uses panel data analysis in EViews 9 software. The quality of sustainability reporting is measured using the reliability index by Sebrina and the Ohlson market value model is used to determine the information content. Findings indicate that the quality of sustainability reporting has information content but has not increased the information content of financial statements. This may be due to the novelty of sustainability reporting in Iranian companies. It is suggested that legislators conduct necessary investigations regarding the cost-benefit of making companies' sustainability reporting discretionary or mandatory.

Keywords:
Incremental Information Content, Quality of the Sustainability Report, Relative Information Content

https://doi.org/10.22067/ijaaf.2025.46192.1481

NUMBER OF REFERENCES
38

NUMBER OF FIGURES
-

NUMBER OF TABLES
3

Homepage: https://ijaaf.um.ac.ir
E-Issn: 2717-4131
P-Issn: 2588-6142

*Corresponding Author: Shahnaz Mashayekh
Email: sh.mashayekh@alzahra.ac.ir
Tel: 09121490376
ORCID: 0000-0002-3723-4295

1. Introduction

Sustainable development supports economic and social progress while preventing environmental destruction and promoting the efficient use of natural resources. Companies play a crucial role in achieving sustainable development goals by implementing business practices that increase shareholder wealth and maximize employees' and society's economic and social well-being without negatively impacting the environment. Such activities of companies that contribute to sustainability are the process of creating a balance between economic, social, and ecological concerns (Mensah, 2019). Companies use sustainability reports to connect with their society and environment and manage interactions with various stakeholders for societal approval and activity continuation (Esmaeilzadeh et al., 2022).

Sustainability reports are critical to communicating the company's commitments and performance on sustainability issues. However, in the accounting literature, the reliability and validity of these reports have been widely criticized (Boiral et al., 2019).

The GRI standards help organizations increase their transparency and communicate both their positive and negative impacts on sustainable development. These standards enable consistent and high quality sustainability reporting, which helps organizations meet the needs of their stakeholders for comparable and reliable data (The GRI standards: a guide for policy-makers, 2021). To investigate the relationship between sustainability reporting and its quality for investors. Empirically, we aim to determine how investors perceive this information negatively or positively when estimating the company's value.

The information content of corporate sustainability reporting (CSR) has been studied from different theoretical perspectives, though yielding inconclusive evidence (Jadoon et al., 2021). Therefore, it is necessary for investors to re-examine the company's sustainability report, especially its quality. Amin and Salehnejad (2020) believe that the level of corporate sustainability reaches its peak in the maturity phase of the company's life cycle and has a positive and significant effect on economic value-added for the company. Studies that exclusively deal with the quality of sustainability reporting in Iran are not available. So, this study examines the information content of the company's sustainability report, emphasising its quality.

According to the stakeholder theory, sustainability reporting suggests that companies should meet the wider needs of stakeholders. This interaction with stakeholders can lead to innovations and improve the financial performance of companies. The increase in the sustainability disclosure level causes an increase in the value of the company's shares. Also, when there is no public disclosure of the company's sustainability reporting, the amount of risk accepted by investors will increase significantly (Rouhbakhsh, 2022).

The existing literature on corporate sustainability performance is dominated by two conflicting hypotheses: the social impact hypothesis and the trade-off hypothesis (Chen and Lee, 2017). Based on the social impact hypothesis, providing a wide class of stakeholders while improving the company's financial performance will ultimately increase the shareholders' wealth. This hypothesis aligns with the stakeholder theory (Alshehhi et al., 2018). On the other hand, based on the trade-off hypothesis, the company's sustainability activities will lead to unnecessary costs and ultimately reduce the company's profitability. This hypothesis opposes the stakeholders' interests (Marom, 2006; Jadoon et al., 2021).

Considering the existence of two contradictory hypotheses and inconclusive empirical evidence in corporate sustainability performance, it is necessary to examine the information content of corporate sustainability reports in listed companies in Iran to achieve a single theory.

While examining the information content of the company's sustainability report, this study also considers the quality of the sustainability report. This is an important factor for the capital market

practitioners.

2. Literature review

There is a global trend towards sustainable development. In addition, environmental issues such as air and water pollution, climate changes and ecosystem dangers, attention to corporate social responsibility and the risk the organizations faced during the spread of COVID-19. Therefore, the stakeholders need to be well informed about those risks and how they can affect the organizations by disclosing how social and environmental issues impact business operations (Metwally, 2023).

Environmental disclosure is positively linked to environmental performance. High quality environmental disclosers display effective corporate governance and tend to face less difficulties accessing capital markets. High quality environmental disclosures are value relevant and improve investor perceptions (Iatridis, 2013).

Internal Controls Reporting, Sustainability Innovation Performance, and Earnings Quality were rated first to third, respectively, among the 25 criteria affecting the quality of sustainability reporting, according to the FDANP (Fuzzy Decision-Making Trial and Evaluation Laboratory Analytic Network Process-based) (Esmaeilzadeh et al., 2022).

The IRI (integrated reporting index) showed an increasing trend, indicating an improvement in the overall disclosure quality of Indian companies. This quality upgrade of IR might result from the initiatives of the top management and awareness about the reporting (Devarapalli et al., 2024). Atika and Simamora (2024) investigated the effect of corporate culture on sustainability report quality; based on their research, low clan culture, high hierarchy culture, and high market culture lead to high sustainability report quality.

2.1 Assurance and quality

Al-Shaer (2020) concluded that firms devoting more resources to producing high-quality sustainability reports are likely to demonstrate an overall commitment to quality. This commitment alleviates auditors' concerns about the opportunistic use of sustainability reporting, reducing business risk and the effort auditors expend to verify financial reports.

Moroney et al. (2012) used an index based on the Global Reporting Initiative (GRI) to measure the quality of company environmental reporting. Results showed that the quality of voluntary environmental disclosures scores significantly higher for assured companies than unassured companies. The quality does not differ for assured companies, whether assured by accountants or consultants.

Auditors are important as change agents in implementing integrated reporting (IR) assurance. They support the correct interpretation of International IR Council standards and promote IR (Briem and Wald, 2018).

Internal auditors are a primary component of corporate governance mechanisms. Management uses their assurance to ensure the organization can report sustainable activities. However, the work of internal auditors in assuring sustainability complements external auditors and does not replace them (Metwally, 2023). The effectiveness of internal audits, risk management processes, and sensitivity to sustainability all had a significant positive relationship with sustainability audits (Amoako et al., 2023).

2.2 Stakeholder theory

Based on the stakeholder theory, companies must consider the interests of a wide group of stakeholders to achieve success. Therefore, while focusing on the interests of the main stakeholders such as shareholders, employees, customers, and the government, companies should consider the

interests of secondary groups such as environmental protection groups and civil society groups (Schaltegger et al., 2019). Despite the diverse stakeholder groups, companies should apply procedures and policies beneficial to all stakeholders (Darnall et al., 2010).

According to the stakeholders ' demands for transparency, sustainability reporting is an important tool for decreasing information asymmetry. On the other hand, increasing transparency allows investors to have more appropriate evaluations of firms' activities and direct their investments to companies with more enthusiasm (Esmaeilzadeh et al., 2022).

Porter and Kramer (2006, 2011) examined the relationship between social and economic development from a different perspective by considering the conflicting views on sustainability activities (social impact hypothesis and the trade-off hypothesis). By stating that companies can not solve all of society's social and environmental problems, they should focus on social and environmental activities that benefit society and the company. As a result, reconciliation between conflicting hypotheses is possible.

Stakeholder theory claims that society will support a company if it receives value in return, especially in sustainability projects and activities. The focal business's key task is to coordinate value creation with and for stakeholders according to the common purpose (Freudenreich et al., 2020).

IR policy has emerged analogously with the institutional environment and stakeholders' expectations. The distinct nature of IR has caused a paradigm shift from silo thinking of wealth creation to integrated thinking of value creation (AbuRaya, 2024).

2.3 Value-enhancing theory

Porter and Kramer (2011), introducing the concept of shared value, stated that if a company chooses social and environmental activities that benefit society and the company, then these activities positively affect the company's value and support the value-enhancing theory. Conversely, if a firm does not choose a combination of social and environmental activities that benefits both the firm and society, such activities reduce value and support the trade-off theory.

Hence, an empirical study on the information content of corporate sustainability performance from the perspective of shared value is necessary. This study used stakeholder and value-enhancing theories and the concept of shared value as a theoretical basis.

CSR plays a significant role in enhancing firm value by promoting employee productivity, ensuring better operating performance, expanding the product market, improving capital market benefits, building a corporate reputation, and strengthening a firm's relationship with society, regulators and other stakeholders. CSR is used as a strategic tool to maximize value, and firms with better CSR performance have greater potential to increase shareholder value as well as the value of other stakeholders (Malik, 2015).

2.4Research gap

The analysis and review of literature on corporate sustainability performance indicate that researchers have often focused on individual dimensions of corporate sustainability performance.

Few studies, however, have used a comprehensive measure of companies' sustainability performance, and they have not reached an agreement in this field. The reason for this uncertainty is that they have ignored the most critical factor in the company's sustainability report, which is the quality of the sustainability report. This factor can increase the information content of corporate sustainability performance (Jadoon et al., 2021).

Considering the empirical evidence in the field of corporate sustainability performance, it is

necessary to examine the information content of corporate sustainability reports and consider the quality of sustainability reports in listed companies in Iran. The main questions of the study are as follows:

1. Does the quality of sustainability reporting have information content?
2. Does the quality of sustainability reporting increase the information content of financial statements?

Therefore, the quality of sustainability reporting must be considered under the concept of shared value of information content. This study investigates the information content of the sustainability reporting quality of listed companies in Iran and helps capital market practitioners, particularly investors, evaluate a company's performance using sustainability reports.

2.5 Information content

The information content is the ability to measure performance to explain simultaneous changes in stock returns. This estimates the usefulness of performance measurement in investors' decision-making (Barton et al., 2010). If there is a statistical association between the accounting numbers and market values of equity, then accounting information is relevant. Traditionally, the focus on information content has been limited to financial information such as earnings, sales, book value of equity, comprehensive income, and operating cash flows (Beisland, 2009).

Another stream of information content has developed, considering non-accounting variables as important factors in determining stock prices (Aureli et al., 2020). It is emphasized that accounting information is not the only effective factor in explaining changes in the market value of companies. Rather, non-accounting factors are equally important and affect the market value and its changes (Lombardi et al., 2019).

As a result, research in the field of the information content of non-financial information revolves around corporate sustainability performance and its dimensions (Aureli et al., 2020). This adds quantitative and qualitative measures to explain simultaneous stock price changes.

2.6 Information content of sustainability reporting through CSP

From a theoretical point of view, the company's sustainability performance (CSP) is considered an intangible asset by investors and is reflected in the market value of the company (Kaspereit and Lopatta, 2016). CSP includes the dimension of corporate governance along with social and environmental dimensions.

Corporate governance deals with managing and controlling the company to provide transparency in financial reporting, risk management and stakeholder rights. Hence, corporate governance is essential to companies' sustainability because it aligns investors' interests with the company's overall purpose.

Moses et al. (2020) concluded that there is a positive association between the examined board governance elements and sustainability reporting quality (SRQ) based on multiple theories. Devarapalli and Mohapatra (2024) found a positive impact of board size, CEO duality, non-executive board members, financial leverage, the COVID-19 crisis and firm size on IR quality among Indian listed companies.

The results of previous empirical research indicate a positive association between CSP and market valuation (for example, Chang and Kuo, 2008; Lourenço et al., 2012; Kaspereit and Lopatta, 2016; Jung et al., 2018). The increase in companies' disclosure of sustainability information leads to improvements in their financial performance and value (Jafari Jam et al., 2019). There is a significant negative relationship between sustainability disclosure and systematic risk. Sustainability disclosure can create a positive image of the company among stakeholders and

reduce the systematic risk of the company (Khalifa Soltani and Alishahi Bejstani, 2022).

Tran et al. (2022) discovered a negative correlation between CSR and earnings management. Firms with high social responsibility are less inclined to manipulate earnings through accrual earnings management (AEM) and real earnings management (REM). These firms are less likely to distort economic performance by manipulating accounting practices or changing real business transactions.

On the other hand, Nugrahani et al. (2022) suggest that the industry type and government pressure have a notable positive impact on the disclosure of sustainability reports. However, the company's size does not influence the disclosure of sustainability reports.

2.7 Information content of quality of CSR

Environmental and consumer pressures positively affect the quality of sustainability reports, whereas shareholder, employee, government, and creditor pressures do not impact the quality of these reports. Also, when used as control variables, profitability and company size do not affect the quality of sustainability reports (Lulu, 2020).

According to Vitolla et al. (2020), IR quality is significantly and positively influenced by profitability, size, financial leverage, and the civil law system.

The review of previous studies indicates that the critical factor of financial reporting quality is ignored in relation to the information content of the CSP. It is believed that capital market participants such as investors and even financial analysts are interested in the quality of sustainability information because it will be difficult to obtain reliable information, especially when the reported nature is complex. Also, sustainability disclosures can play a role in any transition toward a less unsustainable society (Cho et al., 2015).

In this regard, Martínez-Ferrero and García-Sánchez (2017) believed that the quality of sustainability reporting reduces the cost of capital, which means the information content of the quality of CSR. In addition, the decrease in the cost of capital is significantly higher when sustainability reporting is assured by a top-tier accountancy firm instead of by engineering or consultancy firms. Furthermore, Bachoo et al. (2013) reported a positive relationship between the quality of sustainability reporting, future expected performance and the cost of equity capital for Australian listed companies. In addition, Rivera et al. (2017) showed a positive relationship between CSR strategic consistency in corporate economic and financial performance despite the turbulent financial environment.

Therefore, in this study, the following hypotheses have been considered:

H1: the quality of sustainability reporting has information content (relative information content of CSRQ).

H2: The SRQ increases financial statement information content (incremental information content of CSRQ).

3. Research methodology

This study designed a model and then conducted it in a hybrid (qualitative-quantitative) way. The study design approach began by developing a theoretical framework, stating hypotheses, collecting data, analyzing the data, and presenting research findings. The data for the study was gathered from 159 companies on the Tehran Stock Exchange (TSE) and 40 companies in the Over-the-Counter (OTC) market, totaling 199 firms, from 2014 to 2022.

In terms of methodology, this work is deductive research based on the approach, analytical research based on nature, applied research based on the purpose and cross-sectional and conclusive research based on the research design.

In this study, we utilized a valuation approach - the Ohlson model - to examine the information content of sustainability reporting quality among listed companies. The reliability index from Sebrina et al. (2023) was used to assess the quality of sustainability reporting, while the market value model developed by Ohlson (1995) was employed to determine the information content.

The panel data method was utilized to analyze the information content of both financial and non-financial aspects of sustainability performance and its various dimensions. This research used a hybrid approach, incorporating quantitative and qualitative measures as essential factors in explaining simultaneous stock price changes. The Levin, Lin, and Chu tests were conducted to ensure stability and that all variables remained stable over time. Following the research methodology, we detail the measurement of sustainability reporting quality (independent variable) and information content (dependent variable) within the econometric model.

3.1 Measuring the quality of sustainability reporting (independent variable)

The GRI standards ensure data quality and comparability and contribute to better decision-making by allowing access to information that promotes better decisions (The GRI standards: a guide for policy-makers, 2021)

Badia et al. (2020) analyzed the diffusion and quality of non-financial reporting tools in the public utility sector. They used the principles of the GRI framework to measure quality, including clarity and accuracy, timeliness and stakeholder engagement, comparability, and reliability. They addressed the quality issue and found that, overall, the accuracy/clarity and comparability of non-financial reporting is satisfactory; timeliness and stakeholder engagement appear to be acceptable, while reliability does not appear to be acceptable.

This paper also used the GRI framework to measure the quality of sustainability reporting. Based on this framework, sustainability reporting information should contain several features: clarity, accuracy, timeliness, comparability, and reliability.

Among these features, reliability means collecting, recording, compiling, analyzing and disclosing information and processes used to prepare sustainability reports to determine the quality and importance of information by examining them. Due to the nascent nature of sustainability reports in Iranian companies, only the reliability index can be used to measure the quality of sustainability reporting. Therefore, in the present research and following Sebrina et al. (2023), in order to measure the quality of sustainability reporting, the reliability index as described in Table 1 has been used:

Table 1. Measuring the Quality of CSR

Items	score
No sustainability report	1
There is a sustainability report	2
There is a sustainability report, and the company has a sustainability committee affiliated with the board of directors	3
Non-audit companies provide sustainability reports and assurances	4
A sustainability report exists and is externally guaranteed by one of the audit firms	5

3.2 Measuring information content (dependent variable)-econometric model

Because the purpose of this study was to investigate the long-term impact of sustainability reporting quality on capital market reaction, the panel data method was used to determine the information content of financial and non-financial information.

The market value model developed by Ohlson (1995) was applied to investigate whether investors value the quality of CSR.

Based on this model, stock market value is only a function of accounting earnings and book value. In this study, the Ohlson (1995) model was modified by including one additional non-financial variable: quality of CSR. The rationale behind this was that the quality of CSR reduces risk and economic uncertainty for investors and enhances earnings predictability (Lourenço et al., 2012). These benefits are achieved by adding credibility and reliability to CSR, which increases stakeholders' confidence in the information provided (Zorio et al., 2013), and investors can accurately calculate the corporate market value by reducing information asymmetry. In other words, responsibility reporting is a part of a firm's communication tools and GRI responsibility reporting produces a more precise market valuation of a firm (Schadewitz and Niskala, 2010). In this research, the following equations indicate the proposed model:

$$MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BVPS_{it} + \varepsilon_{it} \quad (1)$$

$$MV_{it} = \beta_0 + \beta_1 EPS_{it} + \beta_2 BVPS_{it} + \beta_3 CSRQ_{it} + \varepsilon_{it} \quad (2)$$

Where "i" indicates the company, "t" is the year, "MV" is the market value per share, "BVPS" is the book value per share, and "EPS" is the earnings per share. CSRQ is the quality of CSR with values ranging from 1 to 5 (based on Table 1). A higher value indicates a higher quality of sustainability reporting.

A positive and significant relationship between MV and CSRQ indicates H1 verification. Also, a significant difference between adjusted R-squared of (1) and (2) models indicates H2 verification.

3.3 Data sources

The financial variables data (i.e., market value per share, book value per share, and earnings per share) were extracted from Rahavard Novin and sustainability reporting quality data was extracted from financial statements of the Codal database (located on the site Codal.ir).

All data were provided from 159 companies on the TSE and 40 companies in the OTC market.

3.4 Sample Selection

This study utilized panel data from 199 firms spanning from 2014 to 2022 based on the following criteria:

1. The listed companies in Iran, with their financial year ending in March each year.
2. The companies did not change their financial year during the research period.
3. The companies maintained continuous activity and actively traded securities throughout the research period.
4. The companies provided all necessary information for the research from 2014 to 2022.
5. The companies were not categorized as investment companies, banks, or financial intermediaries.

Adhering to these conditions and limitations, 199 companies were selected as the study population from 2014 to 2022.

4. Results

4.1 Descriptive statistics

Descriptive statistics and stationary tests of research variables are presented in Table 2. The results indicate that the sample companies have mean values of 15,973, 2,917, and 1,389 for market value, book value and earnings per share, respectively. The mean of companies' sustainability reporting quality is 1.49.

Standard deviation measures how (low or high) the data is spread out in relation to the mean.

The sample companies have standard deviation values of 25,240, 4,131, 3,043, and 0.51 for market value, book value, earnings per share and companies' sustainability reporting quality.

It is worth mentioning that in estimating the regression models, the values of companies' sustainability reporting quality have been multiplied by 1,000 to homogenise this variable's values with other variables.

Table 2. Descriptive statistics

	MV	BVPS	EPS	CSRQ
Mean	15,973	2,917	1,389	1.491
Median	6,909	1,918	573	1.000
Maximum	327,430	67,665	64,395	3.000
Minimum	386	-11,318	-5,553	1.000
Std. Dev.	25,240	4,131	3,043	0.508
Skewness	4.235	5.862	8.227	0.124
Kurtosis	5.276	8.783	12.31	1.242
Observations	1,791	1,791	1,791	1,791

4.2 Correlation test

The correlation results between the studied variables are presented in Table 3. The findings indicate a positive and significant relationship between book value per share (BVPS), earnings per share (EPS) and companies' sustainability reporting quality (CSRQ) with market value per share. This issue represents the information content of financial statements and CSRQ. To determine the relative and incremental information content of CSRQ, the estimation of regression models is necessary.

Table 3. Correlation Matrix

Correlation (Probability)	MV	BVPS	EPS
BVPS	0.711 (0.000)		
EPS	0.765 (0.000)	0.467 (0.000)	
CSRQ	0.094 (0.000)	0.142 (0.000)	0.121 (0.000)

4.3 Stationary test (Unit Root Test)

The stability test of a time series is crucial before adopting panel data. The Levin, Lin, and Chu test was conducted to test stability. The unit root test results based on the Levin, Lin, and Chu test indicate the stationarity of the variables during the research period. In this test, if the study variables contain a unit root, the expected probability is above 5%.

Table 4 shows that the probability of the Levin, Lin, and Chu test for all variables is less than 5%, ensuring the possibility of rejecting the existence of a unit root and the stability of all variables over time.

4.4 Empirical results

The results of F-Limmer and Hausman tests for models 1 and 2 are presented in Table 5. Table 5 shows that the probability values of Limmer's F statistic and Hausman's statistic in both hypotheses were less than the 5% significance level. Therefore, there is no sufficient reason to reject the panel data model with fixed effects, so the panel data model with fixed effects was used to test the

hypotheses.

Table 4. Stationary test

Variables	Jarque-Bera		Levin, Lin and Chu test	
	Statistic	Prob.	Statistic	Prob.
MV	4,874.32	0.000	-11.92	0.000
BVPS	596.585	0.000	-42.84	0.000
EPS	713.663	0.000	-7.330	0.000
CSRQ	235.311	0.000	-4.314	0.000

Table 5. F-Limmer and Hausman tests

Redundant Fixed Effects Tests- F-Limmer (Model 1)			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.937	(198,1590)	0.000
Correlated Random Effects - Hausman Test (Model 1)			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	31.881	2	0.000
Redundant Fixed Effects Tests- F-Limmer (Model 2)			
Effects Test	Statistic	d.f.	Prob.
Cross-section F	1.965	(198,1589)	0.000
Correlated Random Effects - Hausman Test (Model 2)			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	9.034	3	0.029

4.4.1 Measuring Model 1

Table 6 presents the regression analysis results of the impact of earnings and book value per share on the market value per share to determine the information content of financial statements and a basis for measuring the incremental information content of CSRQ.

The results in Table 6 show that the effects of earnings and book value per share on the market value per share are positive (5.02 and 1.25, respectively) and significant (0.000 and 0.000, respectively) according to the probability of t statistics. Table 6 suggests that the financial statements of companies have information content. In other words, from the point of view of participants in the capital market, earnings and book value per share have been useful and desirable.

In order to test the autocorrelation in a regression model's output, we use the Durbin-Watson test. Durbin-Watson always produces a test number ranging from 0 to 4. In this test, the values 2.0 indicate zero autocorrelation, values below 2.0 mean positive autocorrelation and values above 2.0 indicate negative autocorrelation. The Durbin-Watson test statistic values in the range of 1.5 to 2.5 are relatively normal, but values outside this range could be a cause for concern. In Table 6, the Durbin-Watson statistic is 1.5, so it had no autocorrelation problem.

The F-test determine the overall significance of the regression. The results related to the F-statistic show that the regression model was generally significant. In addition, the results related to the adjusted coefficient of determination (adjusted R-squared) show that during the research period, approximately 63.2% of companies' market value changes were influenced by earnings and book value per share.

According to research, GRI responsibility reporting produces a more precise market valuation of a firm (Schadewitz and Niskala, 2010) and there is a positive association between CSP and market valuation (Chang and Kuo, 2008; Lourenço et al., 2012; Kaspereit and Lopatta, 2016; Jung et al., 2018). The increase in the disclosure of companies' sustainability information leads to improving their financial performance and value (Jafari Jam et al., 2019). Also, the increase in the sustainability disclosure level causes an increase in the value of the company's shares (Rouhbakhsh, 2022).

Table 6. Information content of financial statements (Model 1)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BVPS	1.245	0.199	6.245	0.000
EPS	5.019	0.276	18.16	0.000
C	5,369	489.5	10.97	0.000
R-squared	0.674	Mean dependent var		15,973
Adjusted R-squared	0.633	Akaike info criterion		22.214
F-statistic	16.41	Schwarz criterion		22.831
Prob (F-statistic)	0.000	Durbin-Watson stat		1.512

4.4.2 Measuring Model 2

Table 7 presents the regression analysis results of the impact of CSRQ along with earnings and book value per share on the market value per share to measure the relative and incremental information content of CSRQ.

The results in Table 7 show that the effects of BVPS, EPS and CSRQ on the market value per share are positive (1.24, 4.98, and 2.95 respectively) and significant (0.000, 0.000, and 0.025 respectively) according to the probability of t-statistics. This indicates the information content of CSRQ along with the information content of companies' financial statements. In other words, from the perspective of participants in the capital market, CSRQ has also been useful and desirable.

Considering the positive and significant impact of CSRQ on the market value of companies and considering the reduction of the impacts of BVPS and EPS on the market value of companies (from 1.25 to 1.24 and 5.02 to 4.98, respectively) with the addition of CSRQ to the model, there is not enough evidence to reject H1. In other words, CSRQ has relative information content.

In order to test the autocorrelation in a regression model's output, we use the Durbin-Watson test. The Durbin-Watson test always produces a test number ranging from 0 to 4. In this test, values of 2.0 indicate zero autocorrelation, values below 2.0 mean positive autocorrelation and values above 2.0 indicate negative autocorrelation. The Durbin-Watson test statistic values in the range of 1.5 to 2.5 are relatively normal, but values outside this range could be a cause for concern. In Table 7, the Durbin-Watson statistic is 1.5, so there was no autocorrelation problem.

The F-test determines the overall significance of the regression. The results related to the F-statistic show that the regression model was generally significant. Additionally, the results related to adjusted R-squared show that during the research period, approximately 63.3% of the companies' market value changes were influenced by BVPS, EPS, and CSRQ.

Finally, due to the lack of a significant difference between the adjusted R-squared of the two models (63.2% in model 1 and 63.3% in model 2), H2 is rejected. In other words, CSRQ lacks incremental information content. One reason for this result is the newness of sustainability reporting in Iranian companies.

Table 7. Information content of sustainability reporting quality (Model 2)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
BVPS	1.241	0.199	6.229	0.000
EPS	4.985	0.276	18.03	0.000
CSRQ	2.947	1.312	2.246	0.025
C	1,058	1,981	0.534	0.593
R-squared	0.675	Mean dependent var		15,973
Adjusted R-squared	0.634	Akaike info criterion		22.212
F-statistic	16.39	Schwarz criterion		22.832
Prob (F-statistic)	0.000	Durbin-Watson stat		1.515

According to Lourenço et al. (2012), the quality of CSR reduces risk and economic uncertainty for investors and enhances earnings predictability. Also, the quality of CSR has information content (Martínez-Ferrero and García-Sánchez, 2017; Bachoo et al., 2013; Rivera et al., 2017). The IR quality is significantly and positively influenced by profitability, size, financial leverage and the civil law system (Vitolla et al., 2020).

5. Discussion and practical implications

The results suggest practical insights from a managerial perspective. According to Esmaeilzadeh et al. (2022), sustainability reporting is an important tool for reducing information asymmetry and meeting stakeholders' demands for transparency. Increasing transparency allows investors to evaluate firms' activities more accurately and effectively direct their investments. Therefore, a company's goal is to meet the needs of stakeholders and earn their trust through high-quality sustainability reporting information. Furthermore, Malik (2015) believes that CSR plays a significant role in enhancing firm value by promoting employee productivity, ensuring better operating performance, expanding the product market, improving capital market benefits, building a corporate reputation, and strengthening a firm's relationship with society, regulators, and other stakeholders. CSR is used as a strategic tool to maximize value, and firms with better CSR performance have greater potential to increase shareholder value as well as the value of other stakeholders. Therefore, by considering these two basic stakeholder theories and the value-enhancing theory mentioned in this paper, managers should disclose relevant and reliable information to investors to estimate the company's value for investment decisions in CSR reporting and educate users on how to interpret these reports effectively.

Based on the results, the quality of sustainability reporting has informational content (relative), but the quality of sustainability reporting does not increase the informational content of financial statements (incremental). This may be due to the newness of sustainability reporting in Iranian companies. Therefore, top managers must be proactive and knowledgeable about this concept, and policy-makers should create a business case for the informative content of CSRQ in the TSE.

6. Conclusion

The global pursuit of sustainable development has changed the role of companies. The traditional view of companies (i.e., the shareholders' view), which suggests that they are only responsible for creating shareholder value, has shifted. Now, companies focus on creating sustainable value which covers the four dimensions of sustainability: environmental, social, corporate governance, and economic. However, the CSRQ authenticates the reliability of information on sustainability reporting. In this sense, the quality of sustainability reporting is valued by investors. In this paper, we analyzed the information content of CSRQ and the information content of companies' financial statements.

According to external research, Schadewitz and Niskala (2010) show that GRI responsibility reporting produces a more precise market valuation of a firm and there is a positive association between CSP and market valuation (Chang and Kuo, 2008; Lourenço et al., 2012; Kaspereit and Lopatta, 2016; Jung et al., 2018). Additionally, Lourenço et al. (2012) show that the quality of CSR reduces risk and economic uncertainty for investors and enhances earnings predictability. Also, the quality of CSR has information content (Martínez-Ferrero and García-Sánchez, 2017; Bachoo et al., 2013; Rivera et al., 2017). The IR quality is significantly and positively influenced by profitability, size, financial leverage and the civil law system (Vitolla et al., 2020).

According to internal research, the increase in the disclosure of sustainability information by

companies leads to improving their financial performance and value (Jafari Jam et al., 2019). Also, the increase in the level of sustainability disclosure causes an increase in the value of the company's shares (Rouhbakhsh, 2022). There is a significant negative relationship between sustainability disclosure and systematic risk. Sustainability disclosure can create a positive image of the company among stakeholders and reduce the systematic risk of the company (Khalifa Soltani and Alishahi Bejstani, 2022).

The studies that exclusively deal with sustainability reporting quality in Iran are unavailable. Consequently, this study aimed to create a business case for the information content of CSRQ in TSE.

The results revealed that investors valued the overall CSRQ. In other words, from the investors' point of view, CSRQ has been useful and desirable. Hence, it can be concluded that CSRQ is relevant in terms of value and validates the social impact hypothesis. Also, CSRQ is concerned with the reliability of reported information through third-party assurance. However, due to the lack of significant difference between the adjusted R-squared of the two models (63.2% in model 1 and 63.3% in model 2), CSRQ lacks incremental information content. One of the reasons for this result is the newness of sustainability reporting in Iranian companies.

The findings of this research are useful for future research on CSRQ and for practitioners, such as regulators, standard setters, shareholders, and other stakeholders interested in CSRQ.

The current understanding of information content can be enhanced by focusing on institutional factors, such as exploring whether the basis of regulation of CSRQ (voluntary/mandatory) would affect the information content of CSRQ.

For future research, it is recommended to investigate the lag of dependent variables at t+1, considering the weak efficiency of the Iranian capital market. This delay may impact the effect of sustainability information on prices.

References

1. AbuRaya, R. (2024). The role of institutional and stakeholder interaction in integrated reporting policy development. *Critical Perspectives on International Business*, 20(1), pp. 121-152. https://doi.org/10.1108/cpoib-12-2021-0110
2. Al-Shaer, H. (2020). Sustainability reporting quality and post-audit financial reporting quality: Empirical evidence from the UK. *Business Strategy and the Environment*, 29(6), pp. 2355-2373. https://doi.org/10.1002/bse.2507
3. Alshehhi, A., Nobanee, H. and Khare, N. (2018). The impact of sustainability practices on corporate financial performance: literature trends and future research potential. *Sustainability*, 10(2), p. 494. https://doi.org/10.3390/su10020494
4. Amin, V. and Salehnezhad, S. H. (2020). The impact of corporate sustainability performance on economic value added over the corporate life cycle. *Financial Accounting Knowledge*, 7(2), pp. 1-30 (In Persian). https://doi.org/10.30479/jfak.2020.11879.2568
5. Amoako, G. K., Bawuah, J., Asafo-Adjei, E. and Ayimbire, C. (2023). Internal audit functions and sustainability audits: Insights from manufacturing firms. *Cogent Business & Management*, 10(1), A. 2192313. https://doi.org/10.1080/23311975.2023.2192313
6. Atika, A. and Simamora, A. J. (2024). The effect of corporate culture on sustainability report quality. *Jurnal Akuntansi*, 28(1), pp. 100-124. https://doi.org/10.24912/ja.v28i1.1761
7. Aureli, S., Gigli, S., Medei, R. and Supino, E. (2020). The value relevance of environmental, social, and governance disclosure: evidence from Dow Jones sustainability world index listed companies. *Corporate Social Responsibility and Environmental Management*, 27(1), pp. 43-

52. https://doi.org/10.1002/csr.1772
8. Bachoo, K., Tan, R. and Wilson, M. (2013). Firm value and the quality of sustainability reporting in Australia. *Australian Accounting Review*, 23(1), pp. 67-87. https://doi.org/10.1111/j.1835-2561.2012.00187.x
9. Badia, F., Bracci, E. and Tallaki, M. (2020). Quality and diffusion of social and sustainability reporting in Italian public utility companies. *Sustainability*, 12(11), p. 4525. https://doi.org/10.3390/su12114525
10. Barton, J., Hansen, T. B. and Pownall, G. (2010). Which performance measures do investors around the world value the most—and why? *The Accounting Review*, 85(3), pp. 753-789. https://doi.org/10.2308/accr.2010.85.3.753
11. Beisland, L. A. (2009). A review of the value relevance literature. *The Open Business Journal*, 2(1), pp. 7-27. http://dx.doi.org/10.2174/1874915100902010007
12. Boiral, O., Heras-Saizarbitoria, I. and Brotherton, M. C. (2019). Assessing and improving the quality of sustainability reports: the auditors' perspective. *Journal of Business Ethics*, 155, pp. 703-721. https://doi.org/10.1007/s10551-017-3516-4
13. Briem, C. R. and Wald, A. (2018). Implementing third-party assurance in integrated reporting: companies' motivation and auditors' role. *Accounting, Auditing & Accountability Journal*, 31(5), pp. 1461-1485. https://doi.org/10.1108/AAAJ-03-2016-2447
14. Chang, D. S. and Kuo, L. C. R. (2008). The effects of sustainable development on firms' financial performance–an empirical approach. *Sustainable Development*, 16(6), pp. 365-380. https://doi.org/10.1002/sd.351
15. Chen, R. C. and Lee, C. H. (2017). The influence of CSR on firm value: an application of panel smooth transition regression on Taiwan. *Applied Economics*, 49(34), pp. 3422-3434. https://doi.org/10.1080/00036846.2016.1262516
16. Cho, C. H., Laine, M., Roberts, R. W. and Rodrigue, M. (2015). Organized hypocrisy, organizational façades, and sustainability reporting. *Accounting, Organizations and Society*, 40, pp. 78-94. https://doi.org/10.1016/j.aos.2014.12.003
17. Darnall, N., Henriques, I. and Sadorsky, P. (2010). Adopting proactive environmental strategy: The influence of stakeholders and firm size. *Journal of Management Studies*, 47(6), pp. 1072-1094. https://doi.org/10.1111/j.1467-6486.2009.00873.x
18. Devarapalli, S. and Mohapatra, L. M. (2024). Impact of corporate governance characteristics on integrated reporting quality: an empirical analysis, evidence from India. *Indian Journal of Corporate Governance*, 17(1), pp. 9-32. https://doi.org/10.1177/09746862241236546
19. Devarapalli, S., Mohapatra, L. M., Jreisat, A., Tripathy, S. and Al-Mohamad, S. (2024). Exploring the disclosure quality of integrated reporting in India. *International Journal of Managerial and Financial Accounting*, 16(1), pp. 98-118. https://doi.org/10.1504/IJMFA.2024.135356
20. Esmaeilzadeh, H., Ghodrati, H., Jabbari, H. and Arabzadeh, M. (2022). The model for measuring the quality of sustainability reporting and determinants: application analytic network process Fuzzy DEMATEL-Based technique. *Iranian Journal of Finance*, 6(2), pp. 28-69 (In Persian). https://doi.org/10.30699/ijf.2021.291022.1246
21. Freudenreich, B., Lüdeke-Freund, F. and Schaltegger, S. (2020). A stakeholder theory perspective on business models: value creation for sustainability. *Journal of Business Ethics*, 166(1), pp. 3-18. https://doi.org/10.1007/s10551-019-04112-z
22. Iatridis, G. E. (2013). Environmental disclosure quality: evidence on environmental performance, corporate governance and value relevance. *Emerging Markets Review*, 14, pp. 55-75. https://doi.org/10.1016/j.ememar.2012.11.003

23. Jadoon, I. A., Ali, A., Ayub, U., Tahir, M. and Mumtaz, R. (2021). The impact of sustainability reporting quality on the value relevance of corporate sustainability performance. *Sustainable Development*, 29(1), pp. 155-175. https://doi.org/10.1002/sd.2138
24. Jafari Jam, H., Aliasgari, F. and Zarei, H. (2019). Financial performance and corporate value: the role of sustainability information disclosure. *Financial Accounting Knowledge*, 6(3), pp. 215-242. https://doi.org/10.30479/jfak.2019.9582.2310
25. Jung, S., Nam, C., Yang, D. H. and Kim, S. (2018). Does corporate sustainability performance increase corporate financial performance? Focusing on the information and communication technology industry in Korea. *Sustainable Development*, 26(3), pp. 243-254. https://doi.org/10.1002/sd.1698
26. Kaspereit, T. and Lopatta, K. (2016). The value relevance of SAM's corporate sustainability ranking and GRI sustainability reporting in the European stock markets. *Business Ethics: A European Review*, 25(1), pp. 1-24. https://doi.org/10.1111/beer.12079
27. Khalifa Soltani, S. A. and Alishahi Bejstani, M. (2022). The relationship between corporate sustainability disclosure and risk. *Accounting & Auditing Studies*, 11(42), pp. 5-20 (In Persian).
28. Lombardi, R., Trequattrini, R., Cuozzo, B. and Cano-Rubio, M. (2019). Corporate corruption prevention, sustainable governance and legislation: first exploratory evidence from the Italian scenario. *Journal of Cleaner Production,* 217, pp. 666-675. https://doi.org/10.1016/j.jclepro.2019.01.214
29. Lourenço, I. C., Branco, M. C., Curto, J. D. and Eugénio, T. (2012). How does the market value corporate sustainability performance?. *Journal of Business Ethics*, 108, pp. 417-428. https://doi.org/10.1007/s10551-011-1102-8
30. Lulu, C. L. (2020). Stakeholder pressure and the quality of sustainability report: evidence from Indonesia. *Journal of Accounting, Entrepreneurship and Financial Technology (Jaef),* 2(1), pp. 53-72. https://doi.org/10.37715/jaef.v2i1.1864
31. Malik, M. (2015). Value-enhancing capabilities of CSR: a brief review of contemporary literature. *Journal of Business Ethics*, 127, pp. 419-438. https://doi.org/10.1007/s10551-014-2051-9
32. Marom, I. Y. (2006). Toward a unified theory of the CSP–CFP link. *Journal of Business Ethics*, 67(2), pp. 191-200. https://doi.org/10.1007/s10551-006-9023-7
33. Martínez-Ferrero, J. and García-Sánchez, I. M. (2017). Sustainability assurance and cost of capital: does assurance impact on credibility of corporate social responsibility information?. *Business Ethics: A European Review,* 26(3), pp. 223-239. https://doi.org/10.1111/beer.12152
34. Mensah, J. (2019). Sustainable development: Meaning, history, principles, pillars, and implications for human action: literature review. *Cogent social sciences*, 5(1), A. 1653531. https://doi.org/10.1080/23311886.2019.1653531
35. Metwally, A. (2023). The role of internal auditors in achieving sustainability. *Scientific Journal of Accounting Studies*, 5(3), pp. 1-4. https://doi.org/10.21608/sjar.2023.322484
36. Moroney, R., Windsor, C. and Aw, Y. T. (2012). Evidence of assurance enhancing the quality of voluntary environmental disclosures: an empirical analysis. *Accounting & Finance*, 52(3), pp. 903-939. https://doi.org/10.1111/j.1467-629X.2011.00413.x
37. Moses, E., Che-Ahmad, A. and Abdulmalik, S. O. (2020). Board governance mechanisms and sustainability reporting quality: a theoretical framework. *Cogent Business & Management,* 7(1), A. 1771075. https://doi.org/10.1080/23311975.2020.1771075
38. Nugrahani, T. S., Atiqoh, K. I. and Pertiwi, I. F. P. (2022). The effect of industry type, government pressure, and company size to disclosure of sustainability report. *Journal of*

Business and Management Review, 3(1), pp. 045-056. https://doi.org/10.47153/jbmr31.3092022

39. Ohlson, J. A. (1995). Earnings, book values, and dividends in equity valuation. *Contemporary Accounting Research*, 11(2), pp. 661-687. https://doi.org/10.1111/j.1911-3846.1995.tb00461.x
40. Porter, M. E. and Kramer, M. R. (2006).The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), pp. 78-92. https://doi.org/10.1108/sd.2007.05623ead.006
41. Porter, M. E. and Kramer, M. R. (2011). Creating shared value. *Harvard Business Review*, 89(1/2), pp. 62-77. https://hbr.org/2011/01/the-big-idea-creating-shared-value
42. Rivera, J. M., Muñoz, M. J. and Moneva, J. M. (2017). Revisiting the relationship between corporate stakeholder commitment and social and financial performance. *Sustainable Development*, 25(6), 482-494. https://doi.org/10.1002/sd.1664
43. Rouhbakhsh, Y. (2022). Sustainability reporting: going beyond traditional reporting. *Journal of New Research Approaches in Management and Accounting*, 6(22), pp. 34- 40 (In Persian). https://majournal.ir/index.php/ma/article/view/1571
44. Schadewitz, H. and Niskala, M. (2010). Communication via responsibility reporting and its effect on firm value in Finland. *Corporate Social Responsibility and Environmental Management*, 17(2), pp. 96-106. https://doi.org/10.1002/csr.234
45. Schaltegger, S., Hörisch, J. and Freeman, R. E. (2019). Business cases for sustainability: A stakeholder theory perspective. *Organization & Environment*, 32(3), 191-212. https://doi.org/10.1177/1086026617722882
46. Sebrina, N., Taqwa, S., Afriyenti, M. and Septiari, D. (2023). Analysis of sustainability reporting quality and corporate social responsibility on companies listed on the Indonesia stock exchange. *Cogent Business & Management*, 10(1), pp. 2157975. https://doi.org/10.1080/23311975.2022.2157975
47. The GRI standards: a guide for policymakers. (2021). *Swedish International Development Cooperation Agency (Sida) within the framework of GRI's work with policymakers*. Sundbyberg, Stockholm. retrieved from https://www.globalreporting.org/search/?query=MAKR
48. Tran, N. M., Tran, M. H. and Phan, T. D. (2022). Corporate social responsibility and earnings management: evidence from listed Vietnamese companies. *Cogent Business & Management*, 9(1), A. 2114303. https://doi.org/10.1080/23311975.2022.2114303
49. Vitolla, F., Raimo, N., Rubino, M. and Garzoni, A. (2020). The determinants of integrated reporting quality in financial institutions. *Corporate Governance: The International Journal of Business in Society*, 20(3), pp. 429-444. https://doi.org/10.1108/CG-07-2019-0202
50. Zorio, A., García-Benau, M. A. and Sierra, L. (2013). Sustainability development and the quality of assurance reports: Empirical evidence. *Business Strategy and The Environment*, 22(7), pp. 484-500. https://doi.org/10.1002/bse.1764