Extended Abstract

1. Introduction

In recent years, water-related issues and, consequently, corporate water reporting have attracted growing attention from international professional associations, policymakers, and researchers. This increased focus is driven by several factors. First, water is essential for life, recognized as a fundamental human right, and explicitly addressed in the United Nations Sustainable Development Goals (SDGs). As a result, water management has evolved into a critical social and environmental concern.

Second, population growth, climate change, and economic development have intensified pressure on freshwater resources, making water scarcity and quality degradation increasingly visible. Water is no longer perceived as a freely available public good. In industrial production processes, excessive water consumption and wastewater discharge have rendered traditional water management practices inadequate. Consequently, managers can no longer assume unlimited access to water and must adopt more sophisticated strategies to manage both water availability and quality.

In this context, corporate water reporting plays a vital role by providing stakeholders with relevant information regarding firms' water usage, risks, governance, and sustainability strategies. Transparent water disclosure can enhance accountability, support informed decision-making, and potentially influence firms' financial performance and market valuation. However, the economic consequences of corporate water reporting remain underexplored, particularly in emerging markets.

Given Iran's severe water scarcity and prolonged drought conditions, understanding the financial implications of corporate water disclosure is especially important. Despite this urgency, prior research in Iran has not examined the simultaneous relationships between corporate water reporting, financial performance, and firm value. This study seeks to fill this gap by investigating whether reciprocal relationships exist between water disclosure and financial performance, as well as between water disclosure and firm value, among companies listed on the Tehran Stock Exchange.

Financial performance is measured using return on assets (ROA) and return on equity (ROE), while firm value is proxied by the natural logarithm of Tobin's Q (LnQ).

2. Research Hypotheses

Based on theoretical arguments related to sustainability reporting, signaling theory, and stakeholder theory, the following hypotheses are proposed:

- **H1:** There is a reciprocal relationship between corporate water reporting and the firm's financial performance.
- **H2:** There is a reciprocal relationship between corporate water reporting and firm value.

3. Research Method

This study is applied in terms of purpose and descriptive in terms of data collection. Data were obtained through **content analysis** of annual reports and archival financial data for companies listed on the Tehran Stock Exchange.

Using a systematic elimination method, 102 companies operating in water-sensitive industries were selected over the period 2012–2021, yielding 1,020 firm-year observations. Corporate water reporting was measured using a disclosure checklist developed by Asnad and Fakhari (2023), comprising 41 items across seven disclosure dimensions: water-related performance, impacts, risks and opportunities, water governance, strategy, regulations and water rights, and metrics.

4. Results

The level of corporate water disclosure varied substantially across firms, ranging from 0 to 23 items out of a possible 41, with an average disclosure score of 5.57.

The results indicate a positive relationship between corporate water reporting and return on assets (ROA). However, no reciprocal relationship was found between corporate water reporting and return on equity (ROE). Furthermore, the relationship between corporate water reporting and firm value was unidirectional, with water disclosure exerting a negative effect on firm value.

5. Discussion and Conclusion

This study extends the literature on environmental and water-related disclosure by providing empirical evidence on the economic consequences of corporate water reporting in an emerging market context. The positive association between water disclosure and asset-based performance suggests that improved water transparency may enhance operational efficiency and resource management.

Conversely, the negative effect of corporate water reporting on firm value may reflect market concerns regarding increased costs, regulatory scrutiny, or heightened exposure to water-related risks. These asymmetric findings highlight the complex nature of sustainability disclosure and suggest that investors may interpret water reporting as both a signal of responsibility and an indicator of potential future obligations.
From a policy perspective, the findings can inform regulators and standard setters considering mandatory water disclosure requirements. For managers, the results underscore the importance of integrating water management strategies with financial objectives. For investors, the study provides insights into how water-related disclosures may influence performance evaluation and valuation decisions.
Given Iran's critical water challenges, this research emphasizes the need for enhanced transparency and well-designed regulatory frameworks to promote sustainable corporate water management.
Keywords
Corporate water reporting; Water accounting; Water management; Financial performance; Firm value