



Sustainability Reporting And Assurance Statement Quality: Analysis of Reporting Practices And Standards

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ABSTRACT

The global issue of sustainability in business and corporate social practices has grown in importance and relevance. Sustainability reports serve as a primary communication tool for companies to inform stakeholders such as investors, consumers, government entities, and the general public about their sustainability practices. However, trust in the believability of sustainability reports is often contested, and many stakeholders doubt the information disclosed in these reports. Thus, the value of assurance in sustainable reporting has been acknowledged in order to check credibility of the data. This research used content analysis technique to review the quality of assurance statement of the assurance providers on sustainability reports of mining sector companies listed at BEI, taking into consideration the types of assurers and various standards used. The findings showed that non-accounting assurers offered the highest quality of assurance when compared to its accounting counterparts. Although ISAE 3000 is more dominant as an assurance standard, it still has many limitations compared to AA1000 and GRI, as it does not focus on stakeholder inclusivity, materiality, and responsiveness, which affects the quality of assurance statements.

Keywords: Assurance Statement, Assuror, Quality, Standard, Sustainability Report

INTRODUCTION

Sustainability has become an increasingly pertinent and globally embraced subject (Alshbili et al., 2020; Hazaea et al., 2022; Orazalin & Mahmood, 2019). Moreover, sustainability has been a significant issue in corporate social responsibility and business, referring to sustainable development, with sustainability reporting as a key area of voluntary corporate practices (Gomes et al., 2015).

Sustainability reporting is one of the major communication tools for organizations to express their sustainability initiatives to investors, customers, regulatory bodies, and the general public. The importance of providing transparency on corporate sustainability initiatives, or what is also referred to as sustainability reporting, has been universally recognized. It is a mechanism of accountability for organizations and mirrors their stance regarding sustainability (Cheng et al., 2015; Cuadrado-Ballesteros et al., 2017; Gomes et al., 2015; Pflugrath et al., 2011; Sukoharsono, 2019). There is also growing demand and anticipation of transparency in every area of corporate conduct regarding sustainability (Kamran et al., 2021; Khan et al., 2021). Gunawan et al., (2022) identified 887 sustainability reports by Indonesian companies from 2006-2019, demonstrating an increasing trend towards sustainability reporting in Indonesia.

Although more and more companies are conducting sustainability reporting, many people doubt that such reports are trustworthy (Boiral & Heras-Saizarbitoria, 2020; Cho et al., 2015). Some stakeholders of this information, including investors, consumers, and the public, have begun questioning what these reports reflect (Cuadrado-Ballesteros et al., 2017; García-Sánchez, 2021; Sethi et al., 2017). The mere preparation of these reports does not constitute stakeholders' trust in a firm's sustainability nor does it guarantee the information to be trustworthy. Therefore, there needs to be independent assurance to attest to sustainability reports so that their information is dependable, important, extensive, precise, and trustworthy (Boiral & Henri, 2017; Manetti & Toccafondi, 2012).





Assurance statements can alleviate skepticism and credibility problems related to sustainability reports by incorporating additional quality attributes for these reports (Farooq & de Villiers, 2018; García-Sánchez et al., 2022; Muslu et al., 2019; Simnett, 2009). Besides, assurance is pivotal in enhancing an organization's dedication to sustainable practices (Hodge et al., 2009). Assurance in sustainability reports enhances their consistency and reinforces the reliability of data disclosed (Martínez-Ferrero & García-Sánchez, 2017; O'Dwyer & Owen, 2005; Simnett, 2009). Assured sustainability reports are one way in which organizations can garner trust among investors by guaranteeing that the sustainability data disclosed is credible and has a material influence on investment decisions (Fuhrmann et al., 2017).

The interest in this research emerges from the limited studies examining the quality of assurance statements in the context of sustainability reporting in Indonesia, particularly in the mining sector which has significant environmental and social impacts. Unlike previous research that focused more on the influence of assurance on users' perceptions of sustainability reports (Fuhrmann et al., 2017; Martínez-Ferrero & García-Sánchez, 2017), this study attempts to analyze the quality of assurance statements based on the type of assurator and standards used. Furthermore, previous studies such as Nilipour et al. (2017) and Perego & Kolk (2012) were predominantly conducted in developed countries, indicating that the context of developing countries like Indonesia still needs further exploration. This research also provides a unique perspective by analyzing assurance statements of mining companies listed on the Indonesia Stock Exchange during the 2021-2022 period, providing a current overview of sustainability report assurance practices in Indonesia post-pandemic. Thus, this research is expected to fill the knowledge gap regarding the quality of assurance statements and provide theoretical and practical contributions to the development of sustainability reporting practices in Indonesia.

Identification results indicate that in 2021-2022, only about 15.79% of Indonesian mining industry companies employed assurance services to make their sustainability reports. The percentage is reflective of the low application of assurance services and means that the quality of sustainability reports that are made with the support of assurers' is not satisfactory. The mining sector needs to have high-quality sustainability reports so that transparency, accountability, and a positive contribution to the environmental and social components are guaranteed. But the small number of assurance services shows that the quality of sustainability disclosures of many mining companies has to be enhanced.

Previous research has demonstrated the significant influence of sustainability assurance and stakeholder perceptions on the credibility of sustainability reports and how assurance affects users' perceptions of information credibility within sustainability reports and their quality. Nevertheless, there is limited in-depth research on the relationship between the quality of assurance statements and sustainability reporting. In line with Hahn and Kühnen (2013), who highlighted the limited scope and breadth of research on sustainability assurance, Cohen and Simnett (2015) expressed concern about the scarcity of research in the field of sustainability assurance. Therefore, this study aims to assess the quality of assurance statements, evaluated according to the coding rules developed by Nilipour et al., (2017), to guide whether the quality of assurance depends on the assurator (Accountants vs. Non-Accountants), the applied standards (AA1000, ISAE3000, SAE3000, and GRI standard 2021), and other variables.

This research contributes in several ways. First, it demonstrates different preferences between the two types of assurers in terms of issuing high-quality sustainability assurance reports. Second, it can encourage stakeholders to become more involved in the assurance process conducted by assurers to ensure sustainability and enhance reporting quality according to the perspectives of other stakeholders. Third, this research provides input for standard-setting bodies in developing further guidelines for elements disclosed in sustainability reports from a stakeholder perspective, as more accurate guidelines can improve the quality of sustainability reporting, increase transparency, and provide greater benefits to all stakeholders, including the public, investors, and other interested parties.





METHOD

This research is considered exploratory due to its focus on acquiring a deep insight into the current landscape of sustainability assurance reports. Furthermore, a qualitative approach is deemed appropriate for analyzing assurance statements (Boiral & Heras-Saizarbitoria, 2020). This analysis pertains to mining companies registered on the Indonesia Stock Exchange (sahamidx.com). Many companies in this sector have committed to enhancing corporate social responsibility and sustainability. Therefore, researching how these companies practice sustainability reporting and use assurance statements can provide insights into the extent of their commitment. The chosen research period is 2021-2022 because recent years can offer a more accurate picture of the latest trends in sustainability reporting and the use of assurance statements. This is because many companies update their sustainability reports annually, making the most recent year reflective of the latest practices.

After determining the total number of observations in Table 1, the next step was to search for sustainability reports that had been independently verified by assurers on company websites and/or annual reports. Subsequently, an investigation was conducted into the quality of the assurance statements in the sustainability reports and the types of assurers more commonly used in the mining sector. The methodology followed was similar to previous research studies (Nilipour et al., 2017; O'Dwyer & Owen, 2005; Perego & Kolk, 2012) to assess the quality of the assurance statements in sustainability reporting.

Table 1. Sample Selection

Description	2022	2021
The mining sector is listed on the Indonesia Stock Exchange	57	57
No Sustainability Report (SR)	(8)	(8)
No Assurance Statement (AS)	(36)	(39)
Total Observation (SR with AS)	11	8

The sustainability assurance statements were coded using quantitative content analysis, which allowed for a quality assessment of all the information contained within. The most popular technique for examining corporate social reporting content, including assurance statements, is quantitative content analysis, which is a method that is frequently used in accounting research (Ball et al., 2000; Choon-Yin, 2015; Deegan et al., 2006; Lock & Seele, 2015; O'Dwyer & Owen, 2005; Perego & Kolk, 2012). Using reliable measurement guidelines, this method simplifies text analysis and allows for conclusion-making by turning qualitative data into numerical values (Riffe et al., 2019; Weathington et al., 2012). The quality of assurance statements was evaluated using a disclosure score calculation approach akin to that of Nilipour et al., (2017). Out of 85 sustainability factors, quality scores range from zero (lowest quality) to 40 (highest quality).

RESULTS AND DISCUSSION

Results

There is no single universally accepted theory that serves as a standard guideline for all research and practices (Damen, 2016; Deegan, 2002). Researchers often have the freedom to choose theories they find the most relevant and combine multiple theories that complement each other to explain the complexities of the topic at hand. Previous researchers have utilized agency theory, legitimacy theory, institutional theory, stakeholder theory, and signaling theory (García-Sánchez et al., 2022; Hazaea et al., 2022; Pasko et al., 2021; Rezaee et al., 2023; Ruiz-Barbadillo & Martínez-Ferrero, 2020; Zaman et al., 2021). However, this study employs agency theory, legitimacy theory, and signaling theory as the most appropriate theories to explain issues related to sustainability reporting assurance.

Agency theory views the company as a contract between principals (shareholders) and agents (management). According to Lu et al., (2022), managers can act opportunistically by disclosing only positive information, creating an agency conflict. Although companies are required to report





sustainability information, both positive and negative (Christensen et al., 2021), sustainability reporting is now used as a commitment signal. In mandatory contexts, managers often avoid reporting negative information, which reduces the quality of reporting and limits its usefulness for stakeholders.

Legitimacy theory is concerned with organizational legitimacy (Mousa, 2015). Deegan (2002) indicates that companies report on sustainability to meet their social obligations. Companies are committed to socially responsible behavior to maintain their legitimacy, with the board of directors playing a key role in this strategy (Perrault & McHugh, 2015). Cormier and Magnan (2015) state that the board of directors encourages broader voluntary disclosures, such as sustainability reports, to gain legitimacy from external stakeholders by adhering to social norms (Dowling & Pfeffer, 1975). Gonzalez-Gonzalez and Zamora Ramírez (2016) add that companies risk losing legitimacy if they fail to disclose social and environmental information.

Signaling theory explains how companies use information disclosure to signal to the market and stakeholders about their quality and performance (Amaya et al., 2021). This theory addresses issues of information asymmetry (An et al., 2011), with management having better access to information than owners and other relevant parties (Bowrin, 2018). Management needs to convey positive signals through voluntary disclosures, such as information about human resources, to ensure that owners and other relevant parties trust the information (An et al., 2011). Investors and other relevant parties will assess the organization's status and prospects based on the signals provided (Whiting & Miller, 2008).

Sustainability Reporting (SR) and Assurance Statement (AS)

Sustainability reports (SR) have seen significant development over the past 40 years, emerging from the 1930s (Fuhrmann et al., 2017; Jia et al., 2020; Maroun, 2019, 2020). The rise of SR is attributed to the negative impacts of global economic growth and climate change, prompting companies to reconsider their roles in human development (Yan et al., 2022). Many companies are now engaging in sustainability activities and reporting their performance through SR (Jia et al., 2020; Maas & Reniers, 2014; Maroun, 2020). Investors and stakeholders increasingly view SR as a crucial signal for evaluating a company's social and environmental efforts (Braam & Peeters, 2018; Morioka & Carvalho, 2016; Peters & Romi, 2015). This development has led to a trend towards assuring sustainability reports, which has shifted perspectives on the need and benefits of such assurance (Gomes et al., 2015).

Previous studies (Martínez-Ferrero & García-Sánchez, 2017; O'Dwyer & Owen, 2005; Simnett, 2009) indicate that voluntary assurance enhances the credibility and reliability of the information in SR. Including an assurance statement can increase external stakeholders' confidence in the quality and accuracy of the reported information. Empirical research supports this, showing that voluntary assurance positively impacts credibility and reliability (Cheng et al., 2015; Cuadrado-Ballesteros et al., 2017; Fuhrmann et al., 2017; García-Sánchez, 2020; Harindahyani & Agustia, 2023; Ruiz-Barbadillo & Martínez-Ferrero, 2020; Zaman et al., 2021). However, concerns about the quality of assurance arise due to diversity in assurance provider services (García-Sánchez et al., 2019; Martínez-Ferrero et al., 2018) and differences in SR characteristics (Bepari & Mollik, 2016; Boiral & Henri, 2017). These issues may affect how reports are received and understood by stakeholders (García-Sánchez, 2020; Rivière-Giordano et al., 2018). The lack of a universally accepted standard for assurance leads to variations in definitions, methods, and content of assurance statements, complicating comparison and evaluation by stakeholders.





Figure 1. Framework adapted from Nilipour et al. (2017)

Assuror and Assurance Statement Quality

Assurors, or providers of sustainability assurance, are categorized into two main types based on their background and the entities they represent (Harindahyani & Agustia, 2023; Nilipour et al., 2017). The first category includes assurers with an accounting background, typically public accounting firms specializing in financial audits. The second category comprises non-accounting background assurers, such as consultants, non-profits, and certification bodies with expertise outside of accounting (Farooq & de Villiers, 2017; Hummel et al., 2019; Junior et al., 2014; Martínez-Ferrero et al., 2018).

There is debate over which type of assurer is more effective. Some argue that accounting background assurers are superior due to their experience in financial audits, leading to better sustainability assurance (Cuadrado-Ballesteros et al., 2017; Martínez-Ferrero et al., 2018; N. Burhan & Rahmanti, 2012; Pflugrath et al., 2011). Others believe that non-accounting insurers could offer sustainability assurance of a higher caliber. (Wong & Millington, 2014). Companies often choose assurers based on how the assurance statement (AS) will impact the perceived quality and reliability of their sustainability reports. The quality of AS is assessed based on a minimum set of elements required in the assurance statement (Hummel et al., 2019; Nilipour et al., 2017; O'Dwyer & Owen, 2005; Perego & Kolk, 2012). Even though accounting firms dominate the market for sustainability assurance (Boiral et al., 2019; Channuntapipat et al., 2020; Ruiz-Barbadillo & Martínez-Ferrero, 2020), non-accounting assurers are often found to provide higher quality AS (Gürtürk & Hahn, 2016; Hummel et al., 2019; Rossi & Tarquinio, 2017).

Assurance Statement Quality Approach

Assurers can select an approach that fits their expertise to ensure the reliability of the reported information and meet Assurance Statement (AS) standards. Key standards for producing high-quality AS include AA1000AS, ISAE 3000, GRI (Global Reporting Initiative), and the Indonesian SAE3000 standard. ISAE 3000, issued by the IAASB, is used for non-financial assurance engagements and focuses on data accuracy, requiring explicit opinions from professionals to enhance effectiveness (Boiral & Heras-Saizarbitoria, 2020; Gomes et al., 2015; O'Dwyer & Owen, 2005). AA1000AS, developed by the UK non-profit AccountAbility in 2008, emphasizes stakeholder inclusivity and responsiveness, addressing the needs of all stakeholders (Ackers, 2015; Fuhrmann et al., 2017; García-Sánchez et al., 2022). ISAE 3000 and AA1000AS are complementary rather than competitive (Farooq & de Villiers, 2017). The Indonesian SAE3000 standard applies to assurance engagements beyond historical financial information, guiding public



accountants with ethical requirements set by the Indonesian Institute of Certified Public Accountants (IAPI) (KAP, IAPI).

Discussion

Assurance Statement Quality Based on Assurors Preferences

Within the framework of agency theory, managers have a responsibility to report sustainability information and their involvement in the assurance procedure as an effort to to lessen the imbalance of information (Nilipour et al., 2017). According to agency theory, managerial activities should be appropriately monitored by independent mechanisms (like assurance) (Peters & Romi, 2015). According to current assurance standards, all assurors—internal or external—are deemed independent and qualified to create assurance statement sustainability reports for publicly traded companies. However, the sample selection revealed that external assurors had verified all the sustainability reports under review. Therefore, in agreement with previous analyses (Ackers, 2015; Nilipour et al., 2017; O'Dwyer & Owen, 2005; Perego & Kolk, 2012), this study categorized assurors into two primary external groups: non-accounting and accounting. The analysis covered 19 assurance statements from 11 companies within the mining industry, only one assesor had a background in accounting, namely KAP Purwantono, Sungkoro & Surja. The others came from consulting firms or certification bodies (non-accounting). This suggests that companies in the mining sector tend to prefer consulting firms or certification bodies as assurance providers.

Table 2 shows that certification bodies provide sustainability assurance statements with the highest quality. Out of 8 assurors, 4 or 50% of them come from certification bodies with quality scores above 80%, both in 2021 and 2022. It is noted that certification bodies not only dominate as assurors but also provide the highest quality assurance. Furthermore, the type of assesor (accounting or non-accounting) was found not to influence on the assurance statements' quality. However, the specific quality of assurance statements depends on each assesor's ability to formulate each reporting category (Ackers, 2015; Nilipour et al., 2017).

Table 2. Quality Assurance Based on Assesor Type

No	Assurors	Assesor Type	Year	Description				
				N. of Company	Ave. Score	Score Max.	% Comp	ASQ
1.	SR Asia	Cert. bodies	2021	2	34.50	40.00	86%	High
			2022	2	34.50	40.00	86%	High
2.	LRQA	Cert. bodies	2021	1	33.00	40.00	83%	High
			2022	1	33.00	40.00	83%	High
3.	PT. TUV Rheinland Indonesia	Cert. bodies	2021	1	33.00	40.00	83%	High
			2022	1	33.00	40.00	83%	High
4.	BSI Indonesia	Cert. bodies	2021	-	-	-	-	-
			2022	1	32.00	40.00	80%	High
5.	PT. SGS Indonesia	Cert. bodies	2021	1	35.00	40.00	88%	High
			2022	-	-	-	-	-
6.	KAP Purwantono Sungkoro & Surja	Public Acc. Firm	2021	1	28.00	40.00	70%	High
			2022	1	28.00	40.00	70%	High
7.	Moores Rowland	Cert. bodies	2021	2	26.00	40.00	65%	Middle
			2022	4	26.00	40.00	65%	Middle
8.	PT. Bureau Veritas Indonesia	Cert. bodies	2021	-	-	-	-	-
			2022	1	26.00	40.00	65%	Middle

Note: If ASQ (Assurance Statement Quality) Score ≥ 29 or $\geq 67\%$ = High; AS Score ≥ 14 or $\geq 33\%$ = Middle; and AS Score ≤ 14 or $\leq 33\%$ = Low.



Quality of Assurance Statement

As mentioned earlier, this study employs indicators developed by Nilipour et al., (2017) to assess the quality of assurance statements. A total of 85 statements were reviewed, consisting of 25 disclosure items, with a maximum total score of 40 points. The compliance values were obtained through a comparison of the average scores of each content element in the assurance statement with the maximum scores attainable. If the average score of each element is equal to the highest score, it indicates that the elements in the assurance statement have met or complied with the compliance standards. However, if the average score of each element is lower than the highest score, it signifies that these elements in the assurance statement are not fully compliant. The research findings reveal that the elements "Additional commentary/observation and recommendation" and "Stakeholder participation in the assurance process" have the lowest compliance levels, each reaching only 40% and 45%, respectively (Table 3).

Table 3. The Disclosure Elements

No	Disclosure	Score Average		Score Max.	% Compliance		Total % Comp
		2022	2021		2022	2021	
1	Title	2.00	2.00	2.00	100%	100%	100%
2	Addressee	2.00	2.00	2.00	100%	100%	100%
3	Name of Assurer	1.00	1.00	1.00	100%	100%	100%
4	Statement Date	1.00	1.00	1.00	100%	100%	100%
5	Location of Assurer	0.82	0.75	1.00	82%	75%	78%
6	Responsibilities of Assurer	1.00	1.00	1.00	100%	100%	100%
7	Responsibilities of Reporter	1.00	1.00	1.00	100%	100%	100%
8	Independence of Assurer from Reporting Organization	1.82	1.88	2.00	91%	94%	92%
9	Impartiality of Assurer Towards Stakeholders	1.00	1.00	1.00	100%	100%	100%
10	Competencies of Assurer	1.09	1.13	2.00	55%	56%	55%
11	Criteria used to assess evidence and reach a conclusion	1.91	2.00	2.00	95%	100%	98%
12	Assurance standard used	1.91	2.00	2.00	95%	100%	98%
13	Assurance statement coverage - time	1.00	1.00	1.00	100%	100%	100%
14	Assurance statement coverage - Name of reporting organization	1.00	1.00	1.00	100%	100%	100%
15	Assurance statement coverage - Subject matter	1.00	1.00	1.00	100%	100%	100%
16	Assurance statement coverage - Assurance type	0.45	0.63	1.00	45%	63%	54%
17	The objective of the assurance engagement	1.00	1.00	2.00	50%	50%	50%
18	Summary of Work Performed / Methodology	1.00	1.00	1.00	100%	100%	100%
19	Materiality (from a stakeholder perspective)	1.55	1.75	3.00	52%	58%	55%
20	Inclusivity	0.91	1.25	2.00	45%	63%	54%
21	Responsiveness to stakeholders	0.91	1.25	2.00	45%	63%	54%
22	Conclusion/Opinion	1.27	1.38	2.00	64%	69%	66%
23	Limitation	1.36	1.38	2.00	68%	69%	68%
24	Stakeholder participation in the assurance process	0.82	1.00	2.00	41%	50%	45%





25	Additional commentary/ observation and recommendation	0.73	0.88	2.00	36%	44%	40%
	Total Score	29.55	31.25	40.00	79%	82%	80%

A compliance value of 45% indicates a lack of stakeholder involvement in the checking and verification process conducted by independent parties regarding sustainability reporting, resulting in the report being less relevant and inadequate. This is because stakeholders provide valuable insights into the issues that matter most to them, and when they are not involved, these issues may be overlooked. In an effective assurance process, stakeholders play a crucial role in defining the scope and criteria for assurance, creating trust and legitimacy. Therefore, stakeholder participation in the assurance process is key to ensuring that sustainability reports remain relevant and credible. It helps organizations maintain their legitimacy by meeting the expectations and interests of stakeholders. In other words, stakeholder participation is a tool for preserving organizational legitimacy in the context of sustainability reporting.

Six elements within the disclosure items of the assurance statement are not well met by most assurers, as they fall below the 60% compliance level. This indicates that assurers tend to provide inadequate explanations or relevant information concerning these elements in their assurance statements, such as a lack of clarification about the knowledge and qualifications of assurers that can influence stakeholder trust, ambiguity about the type of assurance provided, uncertainty about the purpose of the assurance process, a shortage of information on how materiality is interpreted from a stakeholder perspective, poorly explained inclusivity, and a lack of information about responsiveness, implying a lack of stakeholder engagement and response. Certainly, this can affect stakeholder understanding and trust in the assurance process and sustainability reporting. Nonetheless, out of the 25 disclosure items, 11 other elements received the highest ratings or achieved 100% compliance, indicating that the overall report is presented with high quality, with a total score of 80%.

Throughout the observation period, there has been an increase in the publication of sustainability reports issued by external assurers. Initially, there were only 8 companies in 2021, which increased to 11 companies in 2022 (Table 4). This increase reflects the growing awareness of companies regarding sustainability issues and corporate social responsibility. They recognize that sustainability reporting is not just an ethical responsibility but also a means of safeguarding their reputation and meeting the expectations of stakeholders, such as investors, consumers, and regulators, for greater transparency and accountability in sustainability matters. Thus, this development represents a positive step toward more sustainable and responsible business practices.

Table 4. Quality Assurance Based on Company

No	Code Co.	2022				2021			
		Ave. Score	Score Max	% Comp	ASQ	Ave. Score	Score Max	% Comp	ASQ
1.	PTRO	35.00	40.00	88%	High	35.00	40.00	88%	High
2.	ITMG	33.00	40.00	83%	High	33.00	40.00	83%	High
3.	ANTM	32.00	40.00	80%	High	35.00	40.00	88%	High
4.	MDKA	33.00	41.00	80%	High	33.00	41.00	80%	High
5.	INCO	34.00	44.00	77%	High	34.00	44.00	77%	High
6.	MEDC	28.00	40.00	70%	High	28.00	40.00	70%	High
7.	PTBA	26.00	40.00	65%	Middle	26.00	40.00	65%	Middle
8.	BUMI	26.00	40.00	65%	Middle	26.00	40.00	65%	Middle
9.	ENRG	26.00	40.00	65%	Middle	-	-	-	-
10.	TINS	26.00	40.00	65%	Middle	-	-	-	-
11.	CITA	26.00	40.00	65%	Middle	-	-	-	-

Note: If ASQ (Assurance Statement Quality) Score ≥ 29 or $\geq 67\%$ = High; ASQ Score ≥ 14 or $\geq 45\%$ = Middle; ASQ Score ≥ 7 or $\geq 22\%$ = Low





33% = Middle; and ASQ Score ≤ 14 or $\leq 33\%$ = Low.

Many sustainability reporting standards emphasize the importance of external assurance. This increase reflects companies' efforts to comply with these standards, which require the audit of sustainability reports. The use of these standards and compliance with them during the assurance process significantly enhances the quality scores of Assurance Statements (Pasko et al., 2021). Similar to prior research, the dominant assurance standard found to be used by assurers in their Assurance Statements is ISAE 3000 (Bepari & Mollik, 2016; Boiral & Heras-Saizarbitoria, 2020; Gomes et al., 2015; Nilipour et al., 2017; Pasko et al., 2021; Zaman et al., 2021). Based on the findings, the ISAE 3000 standard shows a moderate level of quality with an average score of 26.25 in 2022 and 26.00 in 2021 (Table 5), and these results are consistent with Pasko et al., (2021). These values are lower than those of AA1000 and GRI standards. Assurers widely use both of these standards (AA1000 and GRI) because they reflect a high level of quality in Assurance Statements.

Moore's Rowland, a non-accounting firm, was the only entity observed to use the ISAE 3000 standard. The cause for this is found in the fact that assurers do not clarify the type of evaluation associated with assurance and do not give a full clarification concerning the principles of materiality inclusiveness, responsiveness, engagement of stakeholders, observation, and recommendation. This is the case because ISAE 3000 was not intended to assure sustainability reports (Manetti & Becatti, 2009) because of its accounting orientation. One of the key points to mention about ISAE 3000 is an emphasis on the detailed procedures and specific actions being taken in the course of the assurance process. These Assurance Statements are said to draw attention to issues of data reliability, qualitative aspects, and intuitiveness (O'Dwyer & Owen, 2005). Regarding ISAE 3000, the main aspects that are particularly stressed are the adequate procedures for the evidence gathering as well as the independence of the assessor.

Table 5. Quality Assurance Based on Standard

No	Standard Used	Year	Description				
			N. of Assurers	Ave. Score	Score Max.	% Comp	ASQ
1	AA1000	2021	3	33.67	40.00	84%	High
		2022	3	32.67	40.00	82%	High
2	ISAE3000	2021	2	26.00	40.00	65%	Middle
		2022	4	26.25	40.00	66%	Middle
3	SAE3000	2021	1	28.00	40.00	70%	High
		2022	1	28.00	40.00	70%	High
4	GRI Standard 2021 + others	2021	2	34.50	40.00	86%	High
		2022	3	31.67	40.00	79%	High

Note: If ASQ (Assurance Statement Quality) Score ≥ 29 or $\geq 67\%$ = High; ASQ Score ≥ 14 or $\geq 33\%$ = Middle; and ASQ Score ≤ 14 or $\leq 33\%$ = Low.

As opposed to ISAE 3000, AA1000 provides a stakeholder-centered approach that outright emphasizes materiality, stakeholder engagement, and stakeholder responsiveness. In the same way in GRI, emphasis is laid on whether the organization and sustainability reports are issued to a wider stakeholder population. Materiality, stakeholder inclusiveness, and adoption of the stakeholder perspective, which is inherent in AA1000, are also found in GRI. This, in turn, means that their focus is on how faithfully the sustainability reports represent an organization's commitment to the wider society and how organizations meet stakeholder inputs and demands. Consequently, any organization embracing the stakeholder perspective will develop its sustainability reports according to the AA1000 and GRI frameworks and select assurance from the features of AA1000.





CONCLUSION

The research aimed to investigate how the selection of assurers and their approaches to assessing assurance statements (AS) affect the quality of AS. The findings reveal that non-accounting assurers tend to provide higher-quality AS compared to accounting assurers in disclosing AS elements. Non-accounting assurers offer better opinions and recommendations, accommodating the information needs of report users. Regarding the approaches used, ISAE 3000 is more commonly applied, but AA1000 and GRI standards deliver higher-quality assurance reports. This difference is due to variations in scope, approach, and focus, with AA1000 and GRI emphasizing the stakeholder perspective, thus offering more thorough assurance on non-financial aspects of sustainability reports. Ultimately, the quality of AS is crucial for enhancing stakeholder trust, regardless of the approach used. The study has several limitations and suggests areas for future research. Firstly, the content analysis did not allow a deeper exploration of why non-accounting assurers often produce higher-quality AS. Future research could use interviews or case studies of both types of assurers for more insights. Secondly, the research was limited to the mining sector; a multi-sector sample could provide a broader perspective. Lastly, factors such as company characteristics, report complexity, and stakeholder conditions were not considered, and future studies could address these aspects to further understand AS quality.

References

- Ackers, B. (2015). Who provides corporate social responsibility (CSR) assurance and what are the implications of the various assurance practices? *Journal of Economic and Financial Sciences*, 8(1), 125–144. <https://doi.org/10.4102/jef.v8i1.87>
- Alshbili, I., Elamer, A. A., & Moustafa, M. (2020). Social and Environmental Reporting, Sustainable Development and Institutional Voids: Evidence from a Developing Country. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.3732179>
- Amaya, N., López-Santamaría, M., Acosta, Y. A. C., & Hinestroza, M. P. G. (2021). A step-by-step method to classify corporate sustainability practices based on the Signaling Theory. *MethodsX*, 8, 101538. <https://doi.org/10.1016/j.mex.2021.101538>
- An, Y., Davey, H., & Eggleton, I. R. C. (2011). Towards a comprehensive theoretical framework for voluntary IC disclosure. *Journal of Intellectual Capital*, 12(4), 571–585. <https://doi.org/10.1108/14691931111181733>
- Ball, A., Owen, D. L., & Gray, R. (2000). External transparency or internal capture? The role of third-party statements in adding value to corporate environmental reports¹. *Business Strategy and the Environment*, 9(1), 1–23. [https://doi.org/10.1002/\(SICI\)1099-0836\(200001/02\)9:1<1::AID-BSE227>3.0.CO;2-H](https://doi.org/10.1002/(SICI)1099-0836(200001/02)9:1<1::AID-BSE227>3.0.CO;2-H)
- Bepari, M. K., & Mollik, A. T. (2016). Stakeholders' interest in sustainability assurance process. *Managerial Auditing Journal*, 31(6/7), 655–687. <https://doi.org/10.1108/MAJ-06-2015-1208>
- Boiral, O., & Henri, J.-F. (2017). Is Sustainability Performance Comparable? A Study of GRI Reports of Mining Organizations. *Business & Society*, 56(2), 283–317. <https://doi.org/10.1177/0007650315576134>
- Boiral, O., & Heras-Saizarbitoria, I. (2020). Sustainability reporting assurance: Creating stakeholder accountability through hyperreality? *Journal of Cleaner Production*, 243, 118596. <https://doi.org/10.1016/j.jclepro.2019.118596>
- Boiral, O., Heras-Saizarbitoria, I., & Brotherton, M.-C. (2019). Assessing and Improving the Quality of Sustainability Reports: The Auditors' Perspective. *Journal of Business Ethics*, 155(3), 703–721. <https://doi.org/10.1007/s10551-017-3516-4>
- Bowrin, A. R. (2018). Human resources disclosures by African and Caribbean companies. *Journal of Accounting in Emerging Economies*, 8(2), 244–278. <https://doi.org/10.1108/JAEE-07-2016-0065>
- Braam, G., & Peeters, R. (2018). Corporate Sustainability Performance and Assurance on Sustainability Reports: Diffusion of Accounting Practices in the Realm of Sustainable Development. *Corporate Social Responsibility and Environmental Management*, 25(2), 164–181. <https://doi.org/10.1002/csr.1447>





- Channuntapipat, C., Samsonova-Taddei, A., & Turley, S. (2020). Variation in sustainability assurance practice: An analysis of accounting versus non-accounting providers. *The British Accounting Review*, 52(2), 100843. <https://doi.org/10.1016/j.bar.2019.100843>
- Cheng, M. M., Green, W. J., & Ko, J. C. W. (2015). The Impact of Strategic Relevance and Assurance of Sustainability Indicators on Investors' Decisions. *AUDITING: A Journal of Practice & Theory*, 34(1), 131–162. <https://doi.org/10.2308/ajpt-50738>
- Cho, C. H., Laine, M., Roberts, R. W., & Rodrigue, M. (2015). Organized hypocrisy, organizational façades, and sustainability reporting. *Accounting, Organizations and Society*, 40, 78–94. <https://doi.org/10.1016/j.aos.2014.12.003>
- Choon-Yin, S. P. N. C., T. (2015). An investigation of the corporate responsibility report assurance statements of the Big Four banks in Australia. *Journal of Economics Library*, 2(1), 3–14.
- Christensen, H. B., Hail, L., & Leuz, C. (2021). Mandatory CSR and sustainability reporting: economic analysis and literature review. *Review of Accounting Studies*, 26(3), 1176–1248. <https://doi.org/10.1007/s11142-021-09609-5>
- Cohen, J. R., & Simnett, R. (2015). CSR and Assurance Services: A Research Agenda. *AUDITING: A Journal of Practice & Theory*, 34(1), 59–74. <https://doi.org/10.2308/ajpt-50876>
- Cormier, D., & Magnan, M. (2015). The Economic Relevance of Environmental Disclosure and its Impact on Corporate Legitimacy: An Empirical Investigation. *Business Strategy and the Environment*, 24(6), 431–450. <https://doi.org/10.1002/bse.1829>
- Cuadrado-Ballesteros, B., Martínez-Ferrero, J., & García-Sánchez, I. M. (2017). Mitigating information asymmetry through sustainability assurance: The role of accountants and levels of assurance. *International Business Review*, 26(6), 1141–1156. <https://doi.org/10.1016/j.ibusrev.2017.04.009>
- Damen, I. (2016). *Quality of assurance on sustainability reports. A study on determinants of the quality of external sustainability assurance.*
- Deegan, C. (2002). Introduction. *Accounting, Auditing & Accountability Journal*, 15(3), 282–311. <https://doi.org/10.1108/09513570210435852>
- Deegan, C., Cooper, B. J., & Shelly, M. (2006). An Investigation of TBL Report Assurance Statements: Australian Evidence. *Australian Accounting Review*, 16(39), 2–18. <https://doi.org/10.1111/j.1835-2561.2006.tb00355.x>
- Dowling, J., & Pfeffer, J. (1975). Organizational Legitimacy: Social Values and Organizational Behavior. *The Pacific Sociological Review*, 18(1), 122–136. <https://doi.org/10.2307/1388226>
- Farooq, M. B., & de Villiers, C. (2017). The market for sustainability assurance services. *Pacific Accounting Review*, 29(1), 79–106. <https://doi.org/10.1108/PAR-10-2016-0093>
- Farooq, M. B., & de Villiers, C. (2018). The shaping of sustainability assurance through the competition between accounting and non-accounting providers. *Accounting, Auditing & Accountability Journal*, 32(1), 307–336. <https://doi.org/10.1108/AAAJ-10-2016-2756>
- Fuhrmann, S., Ott, C., Looks, E., & Guenther, T. W. (2017). The contents of assurance statements for sustainability reports and information asymmetry. *Accounting and Business Research*, 47(4), 369–400. <https://doi.org/10.1080/00014788.2016.1263550>
- García-Sánchez, I. (2020). Drivers of the CSR report assurance quality: Credibility and consistency for stakeholder engagement. *Corporate Social Responsibility and Environmental Management*, 27(6), 2530–2547. <https://doi.org/10.1002/csr.1974>
- García-Sánchez, I.-M. (2021). Corporate social reporting and assurance: The state of the art. *Revista de Contabilidad*, 24(2), 241–269. <https://doi.org/10.6018/rcsar.409441>
- García-Sánchez, I.-M., Aibar-Guzmán, B., & Aibar-Guzmán, C. (2022). What sustainability assurance services do institutional investors demand and what value do they give them? *Sustainability Accounting, Management and Policy Journal*, 13(1), 152–194. <https://doi.org/10.1108/SAMPJ-06-2020-0199>
- García-Sánchez, I.-M., Suárez-Fernández, O., & Martínez-Ferrero, J. (2019). Female directors and impression management in sustainability reporting. *International Business Review*, 28(2), 359–374. <https://doi.org/10.1016/j.ibusrev.2018.10.007>
- Gomes, S. F., Eugénio, T. C. P., & Branco, M. C. (2015). Sustainability reporting and assurance in



- Portugal. *Corporate Governance*, 15(3), 281–292. <https://doi.org/10.1108/CG-07-2013-0097>
- Gonzalez-Gonzalez, J. M., & Zamora Ramirez, C. (2016). Voluntary carbon disclosure by Spanish companies: an empirical analysis. *International Journal of Climate Change Strategies and Management*, 8(1), 57–79. <https://doi.org/10.1108/IJCCSM-09-2014-0114>
- Gunawan, J., Permatasari, P., & Fauzi, H. (2022). The evolution of sustainability reporting practices in Indonesia. *Journal of Cleaner Production*, 358, 131798. <https://doi.org/10.1016/j.jclepro.2022.131798>
- Gürtürk, A., & Hahn, R. (2016). An empirical assessment of assurance statements in sustainability reports: smoke screens or enlightening information? *Journal of Cleaner Production*, 136, 30–41. <https://doi.org/10.1016/j.jclepro.2015.09.089>
- Hahn, R., & Kühnen, M. (2013). Determinants of sustainability reporting: a review of results, trends, theory, and opportunities in an expanding field of research. *Journal of Cleaner Production*, 59, 5–21. <https://doi.org/10.1016/j.jclepro.2013.07.005>
- Harindahyani, S., & Agustia, D. (2023). The assurance providers' role in improving the independent assurance statement quality on sustainability reporting. *Accounting Research Journal*, 36(1), 37–54. <https://doi.org/10.1108/ARJ-01-2021-0024>
- Hazaea, S. A., Zhu, J., Khatib, S. F. A., Bazhair, A. H., & Elamer, A. A. (2022). Sustainability assurance practices: a systematic review and future research agenda. *Environmental Science and Pollution Research*, 29(4), 4843–4864. <https://doi.org/10.1007/s11356-021-17359-9>
- Hodge, K., Subramaniam, N., & Stewart, J. (2009). Assurance of Sustainability Reports: Impact on Report Users' Confidence and Perceptions of Information Credibility. *Australian Accounting Review*, 19(3), 178–194. <https://doi.org/10.1111/j.1835-2561.2009.00056.x>
- Hummel, K., Schlick, C., & Fifka, M. (2019). The Role of Sustainability Performance and Accounting Assurors in Sustainability Assurance Engagements. *Journal of Business Ethics*, 154(3), 733–757. <https://doi.org/10.1007/s10551-016-3410-5>
- Jia, F., Yin, S., Chen, L., & Chen, X. (2020). The circular economy in the textile and apparel industry: A systematic literature review. *Journal of Cleaner Production*, 259, 120728. <https://doi.org/10.1016/j.jclepro.2020.120728>
- Junior, R. M., Best, P. J., & Cotter, J. (2014). Sustainability Reporting and Assurance: A Historical Analysis on a World-Wide Phenomenon. *Journal of Business Ethics*, 120(1), 1–11. <https://doi.org/10.1007/s10551-013-1637-y>
- Kamran, H. W., Pantamee, A. A., Patwary, A. K., Ghauri, T. A., Long, P. D., & Nga, D. Q. (2021). Measuring the association of environmental, corporate, financial, and social CSR: evidence from fuzzy TOPSIS nexus in emerging economies. *Environmental Science and Pollution Research*, 28(9), 10749–10762. <https://doi.org/10.1007/s11356-020-11336-4>
- Khan, T. M., Gang, B., Fareed, Z., & Khan, A. (2021). How does CEO tenure affect corporate social and environmental disclosures in China? Moderating role of information intermediaries and independent board. *Environmental Science and Pollution Research*, 28(8), 9204–9220. <https://doi.org/10.1007/s11356-020-11315-9>
- Lock, I., & Seele, P. (2015). Quantitative content analysis as a method for business ethics research. *Business Ethics: A European Review*, 24(S1). <https://doi.org/10.1111/beer.12095>
- Lu, Y., Ntim, C. G., Zhang, Q., & Li, P. (2022). Board of directors' attributes and corporate outcomes: A systematic literature review and future research agenda. *International Review of Financial Analysis*, 84, 102424. <https://doi.org/10.1016/j.irfa.2022.102424>
- Maas, S., & Reniers, G. (2014). Development of a CSR model for practice: connecting five inherent areas of sustainable business. *Journal of Cleaner Production*, 64, 104–114. <https://doi.org/10.1016/j.jclepro.2013.07.039>
- Manetti, G., & Toccafondi, S. (2012). The Role of Stakeholders in Sustainability Reporting Assurance. *Journal of Business Ethics*, 107(3), 363–377. <https://doi.org/10.1007/s10551-011-1044-1>
- Maroun, W. (2019). Exploring the rationale for integrated report assurance. *Accounting, Auditing & Accountability Journal*, 32(6), 1826–1854. <https://doi.org/10.1108/AAAJ-04-2018-3463>
- Maroun, W. (2020). A Conceptual Model for Understanding Corporate Social Responsibility





- Assurance Practice. *Journal of Business Ethics*, 161(1), 187–209. <https://doi.org/10.1007/s10551-018-3909-z>
- Martínez-Ferrero, J., & García-Sánchez, I. (2017). Sustainability assurance and cost of capital: Does assurance impact on credibility of corporate social responsibility information? *Business Ethics: A European Review*, 26(3), 223–239. <https://doi.org/10.1111/beer.12152>
- Martínez-Ferrero, J., García-Sánchez, I., & Ruiz-Barbadillo, E. (2018). The quality of sustainability assurance reports: The expertise and experience of assurance providers as determinants. *Business Strategy and the Environment*, 27(8), 1181–1196. <https://doi.org/10.1002/bse.2061>
- Morioka, S. N., & Carvalho, M. M. (2016). Measuring sustainability in practice: exploring the inclusion of sustainability into corporate performance systems in Brazilian case studies. *Journal of Cleaner Production*, 136, 123–133. <https://doi.org/10.1016/j.jclepro.2016.01.103>
- Mousa, et. al. , Gehan. A. (2015). Legitimacy Theory and Environmental Practices: Short Notes. *International Journal of Business and Statistical Analysis*, 2(1), 41–53. <https://doi.org/10.12785/ijbsa/020104>
- Muslu, V., Mutlu, S., Radhakrishnan, S., & Tsang, A. (2019). Corporate Social Responsibility Report Narratives and Analyst Forecast Accuracy. *Journal of Business Ethics*, 154(4), 1119–1142. <https://doi.org/10.1007/s10551-016-3429-7>
- N. Burhan, A. H., & Rahmanti, W. (2012). THE IMPACT OF SUSTAINABILITY REPORTING ON COMPANY PERFORMANCE. *Journal of Economics, Business, and Accountancy | Ventura*, 15(2), 257. <https://doi.org/10.14414/jebav.v15i2.79>
- Nilipour, A. (Azi), De Silva, T.-A., & Roudaki, J. (2017). *State of Sustainability Reporting Assurance in New Zealand*. 94–102. https://doi.org/10.5176/2251-1997_AF17.58
- O'Dwyer, B., & Owen, D. L. (2005). Assurance statement practice in environmental, social and sustainability reporting: a critical evaluation. *The British Accounting Review*, 37(2), 205–229. <https://doi.org/10.1016/j.bar.2005.01.005>
- Orazalin, N., & Mahmood, M. (2019). Determinants of GRI-based sustainability reporting: evidence from an emerging economy. *Journal of Accounting in Emerging Economies*, 10(1), 140–164. <https://doi.org/10.1108/JAEE-12-2018-0137>
- Pasko, O., Balla, I., Levytska, I., & Semenysheva, N. (2021). Accountability on Sustainability in Central and Eastern Europe: An Empirical Assessment of Sustainability-Related Assurance. *Comparative Economic Research. Central and Eastern Europe*, 24(3), 27–52. <https://doi.org/10.18778/1508-2008.24.20>
- Perego, P., & Kolk, A. (2012). Multinationals' Accountability on Sustainability: The Evolution of Third-party Assurance of Sustainability Reports. *Journal of Business Ethics*, 110(2), 173–190. <https://doi.org/10.1007/s10551-012-1420-5>
- Perrault, E., & McHugh, P. (2015). Toward a life cycle theory of board evolution: Considering firm legitimacy. *Journal of Management & Organization*, 21(5), 627–649. <https://doi.org/10.1017/jmo.2014.92>
- Peters, G. F., & Romi, A. M. (2015). The Association between Sustainability Governance Characteristics and the Assurance of Corporate Sustainability Reports. *AUDITING: A Journal of Practice & Theory*, 34(1), 163–198. <https://doi.org/10.2308/ajpt-50849>
- Pflugrath, G., Roebuck, P., & Simnett, R. (2011). Impact of Assurance and Assurer's Professional Affiliation on Financial Analysts' Assessment of Credibility of Corporate Social Responsibility Information. *AUDITING: A Journal of Practice & Theory*, 30(3), 239–254. <https://doi.org/10.2308/ajpt-10047>
- Rezaee, Z., Homayoun, S., Rezaee, N. J., & Poursoleyman, E. (2023). Business sustainability reporting and assurance and sustainable development goals. *Managerial Auditing Journal*. <https://doi.org/10.1108/MAJ-10-2022-3722>
- Riffe, D., Lacy, S., Watson, B. R., & Fico, F. (2019). *Analyzing Media Messages*. Routledge. <https://doi.org/10.4324/9780429464287>
- Rivière-Giordano, G., Giordano-Spring, S., & Cho, C. H. (2018). Does the level of assurance statement on environmental disclosure affect investor assessment? *Sustainability Accounting, Management and Policy Journal*, 9(3), 336–360.



0054

- Rossi, A., & Tarquinio, L. (2017). An analysis of sustainability report assurance statements. *Managerial Auditing Journal*, 32(6), 578–602. <https://doi.org/10.1108/MAJ-07-2016-1408>
- Ruiz-Barbadillo, E., & Martínez-Ferrero, J. (2020). What impact do countries have on levels of sustainability assurance? A complementary-substitutive perspective. *Corporate Social Responsibility and Environmental Management*, 27(5), 2329–2341. <https://doi.org/10.1002/csr.1967>
- Sethi, S. P., Martell, T. F., & Demir, M. (2017). Enhancing the Role and Effectiveness of Corporate Social Responsibility (CSR) Reports: The Missing Element of Content Verification and Integrity Assurance. *Journal of Business Ethics*, 144(1), 59–82. <https://doi.org/10.1007/s10551-015-2862-3>
- Simnett, R. , V. A. , & C. W. F. (2009). Assurance on Sustainability Reports: An International Comparison. *The Accounting Review*, 84(3), 937–967.
- Sukoharsono, E. G. (2019). Sustaining a Sustainability Report by Modifying Triple Bottom Line To Pentaple Bottom Line: An Imaginary Research Dialogue. *The International Journal of Accounting and Business Society*, 27(1), 119–127. <https://doi.org/10.21776/ub.ijabs.2019.27.1.7>
- Weathington, B. L., Cunningham, C. J. L., & Pittenger, D. J. (2012). *Understanding Business Research*. Wiley. <https://doi.org/10.1002/9781118342978>
- Whiting, R. H., & Miller, J. C. (2008). Voluntary disclosure of intellectual capital in New Zealand annual reports and the “hidden value.” *Journal of Human Resource Costing & Accounting*, 12(1), 26–50. <https://doi.org/10.1108/14013380810872725>
- Wong, R., & Millington, A. (2014). Corporate social disclosures: a user perspective on assurance. *Accounting, Auditing & Accountability Journal*, 27(5), 863–887. <https://doi.org/10.1108/AAAJ-06-2013-1389>
- Yan, M., Jia, F., Chen, L., & Yan, F. (2022). Assurance process for sustainability reporting: Towards a conceptual framework. *Journal of Cleaner Production*, 377, 134156. <https://doi.org/10.1016/j.jclepro.2022.134156>
- Zaman, R., Farooq, M. B., Khalid, F., & Mahmood, Z. (2021). Examining the extent of and determinants for sustainability assurance quality: The role of audit committees. *Business Strategy and the Environment*, 30(7), 2887–2906. <https://doi.org/10.1002/bse.2777>

