

Impact of the joint provision of audit and non-audit services on the quality of external assurance of sustainability disclosures

Gabriela Borges Silveira¹

 <https://orcid.org/0000-0003-2950-4037>

Email: gabrielasilveira@ufgd.edu.br

Hans Michael van Bellen²

 <https://orcid.org/0000-0002-9224-7232>

Email: hans.michael@ufsc.br

¹Fundação Universidade Federal da Grande Dourados, Faculdade de Administração, Ciências Contábeis e Economia, Departamento de Ciências Contábeis, Dourados, MS, Brazil

²Universidade Federal de Santa Catarina, Centro Socioeconômico, Programa de Pós-Graduação em Contabilidade, Florianópolis, SC, Brazil

Received on 11/10/2023 – Desk acceptance on 12/26/2023 – 5th version approved on 07/16/2024

Editor-in-Chief: Andson Braga de Aguiar

Associate Editors: Márcia Martins Mendes De Luca and Eduardo da Silva Flores

ABSTRACT

External assurance of sustainability disclosures plays a fundamental role in verifying the reliability and integrity of corporate information and is provided by independent professionals. This study aims to investigate the impact of the joint provision of audit and non-audit services on the quality of external assurance. Using a panel dataset of Brazilian listed companies that assured their sustainability disclosures between 2012 and 2021, we specifically examined the effect of experience and technical competence derived from traditional financial audit services on the quality of external assurance of sustainability disclosures. The results indicate that the joint provision of these services has a negative impact on the quality of external assurance, suggesting that conflicts of interest between the audit firm and the reporting company may compromise the independence of the assurance provider. This study contributes to the existing literature by providing evidence that supports the critical perspective on the voluntary adoption of external assurance of sustainability disclosures, a topic that has been scarcely explored nationally. In addition, it has significant practical implications for accounting professionals and regulators by promoting discussions on the need to develop specific norms and standards that improve the quality of external assurance of sustainability, as well as to improve professional knowledge in sustainability.

Keywords: sustainability disclosures, quality of external assurance, providers, auditors.

Correspondence address

Gabriela Borges Silveira

Fundação Universidade Federal da Grande Dourados, Faculdade de Administração,
Ciências Contábeis e Economia, Departamento de Ciências Contábeis
Rodovia Dourados/Itahum, km 12 – CEP: 79804-970
Cidade Universitária – Dourados – MS – Brazil

This is a bilingual text. This article was originally written in Portuguese and published under the DOI <https://doi.org/10.1590/1808-057x20242034.pt>

This article is based on a doctoral thesis defended by the author Gabriela Borges Silveira in 2023.

Paper presented at the 5th UFU Accounting Congress, Uberlândia, MG, Brazil, October 2023.



Efeito da prestação conjunta de serviços de auditoria e não auditoria na qualidade da asseguuração externa das divulgações de sustentabilidade

RESUMO

A asseguuração externa das divulgações de sustentabilidade desempenha um papel fundamental na verificação da confiabilidade e integridade das informações corporativas, sendo realizada por profissionais independentes. Este estudo tem por objetivo investigar o efeito da prestação conjunta de serviços de auditoria e não auditoria na qualidade da asseguuração externa. Utilizando um conjunto de dados em painel das empresas brasileiras de capital aberto que asseguraram suas divulgações de sustentabilidade entre 2012 e 2021, examinou-se, especificamente, o efeito da experiência e competência técnica, derivado dos serviços tradicionais de auditoria financeira, na qualidade de asseguuração externa das divulgações de sustentabilidade. Os resultados indicam que a prestação conjunta desses serviços tem efeito negativo na qualidade da asseguuração externa, sugerindo que conflitos de interesse entre a firma de auditoria e a empresa relatora podem comprometer a independência do provedor. Este estudo contribui com a literatura existente, proporcionando evidências que apoiam a perspectiva crítica sobre a adoção voluntária da asseguuração externa das divulgações de sustentabilidade, um tema pouco explorado nacionalmente. Além disso, há significativas implicações práticas para profissionais e reguladores da área contábil, fomentando as discussões sobre a necessidade de desenvolver normas e padrões específicos que melhorem a qualidade da asseguuração externa de sustentabilidade, bem como de aprimorar o conhecimento profissional em sustentabilidade.

Palavras-chave: *divulgações de sustentabilidade, qualidade da asseguuração externa, provedores, auditores.*

1. INTRODUCTION

Growing global attention to the transparency of interactions between organizations, the environment and society, driven by demand from investors and other stakeholders, has raised concerns about the reliability and interaction of disclosures about organizational actions that generate environmental, social and economic impacts (Boiral, 2016; Papoutsis & Sodhi, 2020).

In order to increase stakeholder confidence in sustainability information, companies have opted to hire independent professionals to externally assure sustainability information (Simnett et al., 2009). In this regard, Simpson et al. (2021) note that the role of external assurance in contributing to the credibility of disclosures and the reputation of companies is a determining factor for the growth of this practice.

The market for external assurance of sustainability information is competitive and does not require specific qualifications. Audit firms and consulting companies specializing in sustainability compete in this market. The dominance of audit firms is attributed to their experience in financial auditing, which is transferred to the external assurance of sustainability. This knowledge transfer is highlighted by Fernandez-Feijoo et al. (2016) and Ruiz-Barbadillo and Martínez-Ferrero (2020).

Detailed knowledge of the client, combined with financial auditing methods, can improve the quality of external assurance of sustainability disclosures (Ruiz-Barbadillo & Martínez-Ferrero, 2020). However, the joint provision of audit and non-audit services to the

same client may raise concerns about the independence of audit firms, especially in relation to the significant fees that a particular client may represent (Boiral & Gendron, 2011; Sethi et al., 2017).

Independence is a fundamental characteristic for the provider to carry out its work impartially and with quality (Farooq & De Villiers, 2017). However, the lack of widely accepted standards to address the complexity of sustainability information and the absence of specific regulations to guide the practice of external assurance of these disclosures give reporting companies significant control over this process, a phenomenon known as “managerial capture” (Hickman & Cote, 2019).

As a result of managerial capture, reporting firms influence the most critical aspects of the external assurance work that are fundamental to its quality. These include the selection of the provider, the breadth and depth of the work performed by the provider, and the scope of the assurance, which includes determining which part of the report’s content is verified and controlling access to information (Boiral et al., 2019b).

The quality of external assurance is determined by the combined likelihood of the provider identifying and reporting on issues related to the client’s sustainability disclosure systems and processes. These two aspects of quality are reflected in the depth of the assurance process, which refers to the identification of issues – including criteria, procedures and the scope of assurance – and the breadth of the assurance report, which refers to the

disclosure of identified issues with clarity and transparency (Hummel et al., 2017).

In this context, the following research question arises:

- How does the joint provision of audit and non-audit services affect the quality of the external assurance of sustainability disclosures?

Therefore, the objective of this study is to analyze the impact of the joint provision of audit and non-audit services on the quality of external assurance of sustainability disclosures.

Previous studies, such as that of Prajogo et al. (2021), have highlighted the increasing scrutiny of ethical issues in non-audit services, with criticism emerging about the impartiality and independence of auditors/providers, especially in a competitive and client-centered environment that characterizes the developing market for external assurance of sustainability information. It is argued that the duality inherent in the joint provision of audit and non-audit services has a negative impact on the quality of external assurance of sustainability information.

By describing the effect of the joint provision of audit and non-audit services on the quality of external assurance, this study contributes to the existing discussion in the literature on the trade-off between the benefits of experience and technical competence derived from traditional financial audit services and the influence of familiarity and economic dependence on the provider.

In the positivist literature, research has focused on analyzing the benefits derived from the experience and knowledge acquired through the activities performed in financial audit services. This theoretical stream suggests a positive relationship between the experience and knowledge acquired in these services (Martínez-Ferrero et al., 2018; Ruiz-Barbadillo & Martínez-Ferrero, 2020).

On the other hand, the critical literature adopts a perspective that emphasizes a negative relationship. It is argued that from the formulation and disclosure stage of sustainability information to the assurance stage,

the managerial capture of both processes compromises credibility (Boiral et al., 2019a; Boiral & Heras-Saizarbitoria, 2020).

In this context, this study offers empirical contributions to fill a gap in the research on practices of external assurance of sustainability disclosures in a different context from pre-existing studies, with the aim of promoting the advancement of this field in the Brazilian setting. Similar to countries such as South Africa, China, Denmark, Spain and Malaysia, Brazil has recently implemented changes in the regulation of external assurance of non-financial information. Through CVM Resolution 14 of 2020, it was established that the external assurance of integrated reporting, including environmental and social data, must be performed by an independent auditor registered with the Brazilian Securities and Exchange Commission (CVM), in accordance with the standards established by the Federal Accounting Council (CFC).

Given the societal role attributed to external assurance of sustainability disclosures, which focuses on the provider's ability to ensure compliance with the interests and expectations of stakeholders, especially external stakeholders (Manetti & Toccafondi, 2012), the discussions in this study are in line with the agenda of the International Auditing and Assurance Standards Board (IAASB, 2024), which aims to improve the consistency and quality of external sustainability assurance standards - International Standard on Sustainability Assurance (ISSA) 5000.

Thus, in practical terms, given the predominance of accounting firms in this market, the institutions that regulate and standardize the accounting profession should consider strategies for professional improvement in the area of sustainability. Unlike financial auditing, which has clearly defined procedures, reporting scope and verification, the assurance of sustainability disclosures is defined by the reporting company. This is because companies have influence over some of the content of a report that is assured, as well as the level of assurance to be provided.

2. THEORETICAL FRAMEWORK

2.1 Quality of External Assurance of Sustainability Disclosures

The communication of the relevant aspects of the assurance process reflects, to some extent, the nature and rigor of the assurance work performed, and the description of these aspects may be the main source for inferring the

quality of these processes (Martínez-Ferrero et al., 2018). In this context, more comprehensive assurance reports should provide more detailed information, when relevant, on the procedures followed, present clear opinions on the object analyzed, and include recommendations to improve the accuracy, credibility and quality of sustainability reports (O'Dwyer et al., 2011; Rossi & Tarquinio, 2017).

O'Dwyer and Owen (2005) found evidence of threats to provider independence and a high degree of management control over the assurance process in their analysis of the content of external assurance of environmental, social and sustainability reports in the UK and Europe. These authors also concluded that the breadth of assurance reports is related to the provider, observing their knowledge and skills, the relationship of independence with the client company, and the way in which the assurance process is communicated.

Seguí-Mas et al. (2015) highlighted the importance of providing information on the independence, responsibility and competencies of providers. They also emphasized the need to include recommendations for improvement and conclusions on the materiality and integrity of reports. They also found that, despite the extensive experience of accounting auditors in assuring financial statements and their greater participation in the market for external assurance of sustainability disclosures, the assurance reports they provide were of lower quality than those provided by certification and consulting firms or sustainability specialists.

Rossi and Tarquinio (2017) documented considerable variability in the content of the statements, particularly with regard to the criteria used and the conclusions and recommendations made by the providers. The main deficiencies were found in the descriptions of the planning process, the explanations of stakeholder engagement and its objectives, and the comments and conclusions. According to the results, the Big4 firms (the big audit firms – KPMG, PWC, Deloitte and EY) were associated with a lower level of disclosure. The authors explain that accounting auditors may be less motivated to provide more persuasive, detailed and clear assurance statements because of the perception that their skills and independence are widely recognized in the traditional audit market, which lends legitimacy to their work.

Hummel et al. (2017) fill a gap in the concept of assurance quality, which they define as the joint probability of the provider identifying and reporting problems related to the systems and processes for reporting the client's sustainability information. These aspects of quality are reflected in the depth of the process, which refers to the identification of problems, and the breadth of the assurance report, which refers to the disclosure of the identified problems. Therefore, the authors develop a subjective concept of the quality of external assurance of sustainability disclosures, expressed in terms of the elements that make up the depth of the process and the breadth of the assurance report.

The depth of external assurance processes, as outlined by Hummel et al. (2017), is related to the intensity with which they are conducted, as more thorough work is more likely to identify critical points related to sustainability performance. The elements of depth are usually agreed between the client and the provider, taking into account that more rigorous assurance processes entail higher costs for the reporting company. On the other hand, the breadth of the external assurance process involves the extent of the assurance report based on a minimum list of elements to be disclosed or not disclosed, allowing users of the information to more fully evaluate the assurance process and results.

The results of the analysis conducted by Hummel et al. (2017) highlighted the main discrepancies between accounting auditors and other types of providers. These discrepancies are particularly evident in the depth of the assurance process, focusing on the aspects of materiality and recommendations. The authors conclude that assurance providers not associated with the accounting profession tend to issue more comprehensive assurance reports, possibly due to specialized knowledge in external review services for non-financial information.

According to Hummel et al. (2017), most of the companies in the sample opt for partial assurance of their reports and a limited level of assurance. In this context, the influence of the companies is more pronounced during the negotiations with the assurance provider on the terms of the assurance contract. The authors concluded that the depth of the assurance process is mainly determined by the underlying motivations of companies to seek external assurance of their sustainability disclosures, taking into account aspects such as cost-benefit.

On the other hand, the breadth of the assurance report is mainly determined by the attributes of the providers, since the preparation and communication of the report are the competencies of the professionals involved. In this context, Martínez-Ferrero et al. (2018) present evidence that the quality of assurance work is directly related to the skills of the providers, especially their specialization and experience.

Boiral et al. (2019a) observed that the discourse of providers seems to be influenced by an optimistic and cautious rhetoric, in which the problems and weaknesses of sustainability reports are rarely directly and explicitly addressed. As the authors point out, the rhetoric prevalent in external assurance reports can be attributed to the pressures faced by reporting companies, which often resort to external assurance as a strategy to strengthen their social legitimacy.

In a critical analysis, Boiral et al. (2019a) argue that assurance reports often take on the characteristics of a “rational myth,” a formal practice that is superficially related to real issues and symbolically adopted to enhance the legitimate and rational image of the organization.

In the context of external assurance provided by accounting audit firms, this “rational myth” tends to obscure the lack of transparency and reliability of sustainability information. Despite the apparent solidity provided by the reputation of large audit firms, the accounting principles underlying the assurance process appear inadequate to deal with the qualitative, complex and multifaceted nature of the information contained in sustainability reports (Boiral et al., 2019a).

Boiral and Heras-Saizarbitoria (2020) found that assurance reports do not reflect a material, substantial and reliable verification process. As a result, external assurance of sustainability information is described as a hyper-real practice that is largely disconnected from critical sustainability issues and stakeholder concerns. This practice is based on a self-referential and procedural accounting rhetoric, supported by standards and norms that are disconnected from the specific requirements of sustainability information.

García-Sánchez et al. (2022) found empirical evidence confirming the increase in trust that various users place in non-financial information when it is subject to external assurance. This process not only facilitates dialogue with stakeholders, but also contributes to the inclusion of companies in reputational rankings. More specifically, the results indicated that high quality external assurance services provide a significant competitive advantage and have a positive impact on a company’s reputation.

2.2 Research Hypothesis

The experience and knowledge acquired during financial auditing activities can be applied internally to other forms of audit offered to the same client company. In this regard, Ruiz-Barbadillo and Martínez-Ferrero (2020) state that this phenomenon – knowledge spillover – can improve the quality of the external assurance process by promoting synergies and facilitating the assessment and understanding of the sustainability policies and performance practices of the reporting company.

As a consultancy service, external assurance provides guidance that promotes the comparability of information and encourages the analysis of industry practices. It also helps to improve reporting systems and processes by providing management with recommendations on the materiality of information and stakeholder engagement.

These recommendations have the potential to influence the selection and balance of topics covered in reports, resulting in more transparent and accurate accountability (Gillet, 2012; O’Dwyer, 2011; Park & Brorson, 2005).

Although the practice of external assurance can improve the quality of sustainability disclosures, it is important to consider Simunic’s (1984) warning about the potential economic conflicts of interest that arise when an auditor simultaneously provides audit and consulting services to the same client. These conflicts arise from the greater profitability of non-audit services. This situation can compromise the auditor’s objectivity, leading them to be less rigorous and to provide services that suit the client’s interests in order to maintain a financially advantageous relationship. In addition, Simunic (1984) explains that the proximity resulting from the joint provision of audit and non-audit services to the same client can lead to excessive familiarity, making it difficult to maintain a critical and objective position. In order to maintain the integrity of the audit, he advocates the separation of audit and consulting services through regulation.

In the context of the joint provision of audit services and external assurance of sustainability disclosures, studies have also pointed to the possibility of managerial capture (client pressure) and professional capture (fee increases) in external assurance processes, related to the contractual aspects of assurance practice (Boiral & Gendron, 2011; Perego & Kolk, 2012).

Farooq and De Villiers (2019) explain that managerial capture occurs when management interferes to restrict the scope of the assurance work, which limits the assessment of the reliability of sustainability information by omitting key issues of integrity, materiality, and full disclosure of relevant matters. In addition, companies’ discretion in selecting the provider and their influence in setting the terms of the contract, as evidenced by fees and contract duration, allow the incumbent audit firm to be captured by the threat of losing financial audit services and external assurance of sustainability disclosures (Ball et al., 2000).

The auditor’s economic dependence on a client, particularly when a significant portion of their revenue is derived from that client, can compromise the objectivity of the audit (Simunic, 1984). When the client company pays significant fees to the audit firm responsible for the audit and external assurance services, the possible economic dependence can threaten the firm’s ability to act independently (Zorio et al., 2013). This is because the commercial relationships between the audit firm and the client company tends to discourage the auditor from being critical and seriously questioning the reliability of

the information disclosed by the company (Boiral et al., 2019a).

Boiral et al. (2019b) highlight that, in addition to commercial pressures, familiarity with reporting companies can compromise independence and create conflicts of interest. They note that prior or long-term relationships with companies can undermine professional skepticism, critical thinking, and the independence needed to conduct high quality audits. In addition, these relationships can fuel conflicts of interest between friendship and the obligation to maintain independence.

Ruiz-Barbadillo and Martínez-Ferrero (2022) obtained evidence that the choice of accounting audit firm as assurance provider may be related to managerial control over the external assurance process, which may involve opportunistic manager behavior with respect to disclosed sustainability information. They suggest that the joint provision of audit and external assurance services may compromise the independence of the assurance provider, as audit firms may gain significant economic benefits from providing both services to the same company.

3. METHODOLOGICAL PROCEDURES

3.1 Sample Selection

This study first analyzes the total of 472 companies listed on the *Brasil, Bolsa e Balcão* (B3) in 2022, in order to identify which companies disclosed and externally assured sustainability disclosures. The sample includes companies that published sustainability information in the form of sustainability reports (SRs) or integrated reporting (IR), considering that IR includes socio-environmental information in the natural and social capitals in the period from 2012 to 2021.

The sample cut-off and the time frame of the analysis were based on the B3's "External Communication 017/2011 – DP," which stipulates that, as of 2012, participating companies must report in their Reference Form (RF) (item 7.8 – Social and Environmental Policies) if they carry out disclosure and external assurance of sustainability information, and provide justification if they do not. The B3's "Report or Explain" program encourages listed companies to signal their environmental, social and corporate governance (ESG) practices to the market through the CVM Reference Form, avoiding the need for additional documents.

The sustainability disclosures were manually collected from the websites provided by the companies in their RFs. External assurance was confirmed by analyzing the external

Considering previous research from a critical perspective that highlights managerial capture over the work of the provider, especially when there is a prior relationship that may imply economic dependence and familiarity with the reporting company, it is plausible to suggest that the joint provision of audit and non-audit services may have a negative effect on the quality of external assurance. Therefore, considering that non-audit services are specifically related to the external assurance of sustainability disclosures, the following hypothesis is proposed:

H1: The joint provision of audit and non-audit services affects the quality of the external assurance of sustainability disclosures.

Although Ruiz-Barbadillo and Martínez-Ferrero (2020) find evidence that the benefits of jointly providing audit services and external assurance of sustainability disclosures outweigh the potential negative effects of familiarity and economic dependence on the quality of assurance, it can be seen that these relationships have scarcely been explored empirically in the literature.

assurance reports attached to the sustainability disclosures themselves. Once the companies were identified, it was decided to exclude observations from companies that lacked the data needed to operationalize the variables of interest in this research, such as those available in the Economática database, financial statements and RF. In addition, we excluded data from companies that had not provided their sustainability disclosures for at least three years, considering a longitudinal analysis of the data.

It should be noted that the sample for 2021 was composed of companies that had disclosed their sustainability information by May 31, 2022 (the end date of the sample selection). This is due to the fact that this type of report generally does not follow a regular periodicity of presentation. In addition, some companies chose to publish their sustainability information on a consolidated basis, i.e., to present a single report for a given economic group. In these cases, the classifications used were based on data from the parent company. Table 1 details the sample selection process.

During the research period, a total of 50 companies were identified as having carried out external assurance of sustainability information. However, the composition of the sample varies over time as not all companies hire external assurance services every year. Therefore, given the discretionary nature of external assurance and other

sample selection criteria, the analysis was conducted using an unbalanced panel dataset, resulting in 336 observations.

3.1.1 Dependent variable

The quality of external assurance of sustainability disclosures is not directly observable. The measures used in the existing literature are limited to content analysis of disclosure elements or the construction of indices based on the extent of external assurance reports.

In this study, we adopted the approach proposed by Hummel et al. (2017), where the dependent variable QASSURANCE was quantified based on the depth and breadth of disclosure elements defined according to the 2013 ISAE 3000 and 2008 AA1000AS standards,

Global Reporting Initiative (GRI) recommendations, and previous literature on the content of external sustainability assurance reports.

Depth is described by the intensity (criteria and procedures) and scope of the assurance process. This metric is quantified by the sum of 6 items divided into 2 categories, as detailed in Table 2. It is important to note that elements that have different weights or are expressed in percentages, such as those related to the assurance process category, have been adjusted proportionally on a scale ranging from 0 to 1, reflecting from the lowest depth (value 0) to the highest depth (value 6).

In the external assurance process category, the scope determines what information is covered by the assurance

Table 1
Sample selection (2012-2021)

Description	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Companies listed on the B3 in 2022 that disclosed sustainability information	150	150	150	150	150	150	150	150	150	63*
(-) Companies that did not assure their sustainability disclosures	125	125	122	117	112	112	107	102	84	21
(-) Companies with missing data (Economatica database, financial statements and RF)	2	3	0	0	0	0	0	1	1	4
(-) Companies that did not reach the minimum frequency of 3 sustainability disclosures in the period	1	0	0	1	0	0	0	3	20	14
Total sample	22	22	28	32	38	38	43	44	45	24

*Of the 150 companies that had reported in their 2021 RFs that they disclosed sustainability information, only 63 had made the reports available on their websites by the date of data collection for this survey.

Source: Prepared by the authors.

Table 2
Measuring the depth of external assurance processes

Category	Element	Measurement
External assurance process	Scope	The review covers: (3) the full report; (2) numerical values and qualitative statements; or (1) numerical values or qualitative statements.
	Coverage	Ratio of the number of sustainability performance indicators assured to the number of sustainability performance indicators reported.
	Method	The sum of the following methods applied in the external assurance process: documentation checks, interviews, data analysis, on-site visits, and public media searches.
	Level	The level of assurance indicated: (3) high/reasonable; (2) mixed; (1) moderate/limited; or (0) none.
Conclusions	Materiality	Whether the external assurance statement contains information about the materiality of the report (1) or not (0).
	Recommendations	Whether the assurance statement contains information indicating that recommendations are provided to the client (1) or not (0).
Total		0-6

Source: Adapted from Hummel et al. (2017).

contract, ranging from numerical values or qualitative statements (1), numerical values and qualitative statements (2), to the full report (3). Coverage assesses the number of sustainability performance indicators reviewed by the provider, expressed as the ratio of assured indicators in relation to reported indicators (Hummel et al., 2017).

The methods element seeks to identify the presence or absence of five methods: a) documentation checks; b) interviews; c) data analysis; d) on-site visits; and e) public media searches. This element ranges from 0 (no methods mentioned) to 5 (all categories mentioned). External assurance processes that use a wide range of methods are more comprehensive. For example, on-site visits allow the quality of data sources to be assessed, while public media searches help to identify possible hidden environmental or social risks (Hummel et al., 2017).

The level element corresponds to the risk of the assurance process not detecting situations that could call into question the provider's opinion on the object examined. A higher level of assurance requires more rigorous procedures to specifically reduce the risk associated with processes for external assurance of sustainability disclosures (Hummel et al., 2017).

In the conclusions category, the materiality element refers to the assessment of the organization's economic, environmental and social impacts. The recommendations element consists of suggestions for improvements to the company's sustainability reports, systems and processes. The preparation of recommendations indicates more in-depth assurance work that requires additional effort from the provider (Hummel et al., 2017).

Breadth is measured by considering the extent of the external assurance report through 13 disclosure items. These items are divided into 4 categories and are binary coded, representing disclosure (1) or non-disclosure (0) of each specific item. Table 3 shows the measurement for each item of the breadth element of external assurance reports.

As shown in Table 3, the general information category covers three elements of the external assurance report: a) audience, which assesses whether the assurance is addressed to all stakeholders; b) assurance standard, which assesses whether the assurance is guided by an assurance norm or standard; and c) miscellaneous information, which assesses the identification of the assurance provider (Hummel et al., 2017).

Table 3
Measuring the breadth of external assurance reports

Category	Element	Measurement
General information	Audience	Whether the external assurance statement is addressed to all stakeholders (1) or not (0).
	Assurance standard	Whether at least one assurance standard is mentioned as a framework for the assurance work (1) or not (0).
	Miscellaneous information	Whether the miscellaneous information (name and company of the assurance provider, date and location) is fully mentioned in the external assurance statement (1) or not (0).
Supplier information	Provider competence	Whether the external assurance statement contains information on the competence of the provider (1) or not (0).
	Provider independence	Whether the external assurance statement contains information on the independence of the provider (1) or not (0).
	Area of responsibility	Whether the external assurance statement contains information on the area of responsibility of the company and the provider (1) or not (0).
External assurance process	Scope	Whether the external assurance statement contains information on the scope of the assurance process (1) or not (0).
	Method	Whether the external assurance statement contains information on the assurance methods and procedures (1) or not (0).
	Level	Whether the external assurance statement specifies the level of assurance (1) or not (0).
Conclusions	Veracity	Whether the external assurance statement indicates the conclusion/opinion of the assurance provider (1) or not (0).
	Materiality	Whether the external assurance statement contains information on the materiality of the report (1) or not (0).
	Limitations	Whether the external assurance statement contains limitations with respect to the sustainability report (1) or not (0).
	Recommendations	Whether the external assurance statement contains recommendations (1) or not (0).
Total		0-13

Source: Adapted from Hummel et al. (2017).

With respect to the elements of the assurance provider information category, these relate to the attributes of the provider, including a description of their competence and independence, as well as information on the areas of responsibility of both the reporting company and the provider (Hummel et al., 2017).

The elements of the external assurance process category address the extent of the information provided on the scope, methods and level of assurance contracted. On the other hand, the conclusions category encompasses four elements that assess whether the provider's conclusion/opinion includes information on the veracity, materiality and limitations of the sustainability disclosures, as well as recommendations for improving future disclosures (Hummel et al., 2017).

Hummel et al. (2017) suggested that firms mainly influence the depth of the assurance process, while the type of provider is associated with the length of the assurance report. However, this study developed a different approach by using an aggregate measure to assess the external assurance quality index. This measure considers the integrated sum of the depth and breadth elements.

This study argues that managerial capture of the external assurance can affect not only the depth of the external assurance, but also the ability of the provider to report potential problems in the preparation of its disclosures. To avoid duplication, the Materiality and Recommendations items, which are presented in both the depth and breadth assessments, were considered only once. In this way, the measure of external assurance quality ranges from 0 (minimum) to 17 (maximum).

To measure QASSURANCE, the data were obtained by examining each company's reports on external assurance of sustainability disclosures.

3.1.2 Independent variable

Similar to the studies of Fernandez-Feijoo et al. (2016) and Ruiz-Barbadillo and Martínez-Ferrero (2020), this research measures the joint provision of audit and non-audit services (AUDIT_ASSURANCE) as a dichotomous variable (dummy), coded 1 if the firm responsible for auditing the financial statements is also hired to assure the sustainability disclosures of its client and 0 otherwise (i.e., if the provider and the audit firm do not coincide).

The information on the joint provision of audit services and external assurance of sustainability disclosures was checked in the independent audit reports (attached to the financial statements) and the external assurance reports (attached to the sustainability disclosures).

3.1.3 Control variables

Based on previous literature, this research included the variables size (SIZE), profitability (PROF), and indebtedness (DEBT) to control the effect of the independent variable on the quality of external assurance.

Company size (SIZE) is defined as the natural logarithm of total assets. The literature suggests a positive relationship between company size and the likelihood of hiring external assurance services for sustainability disclosure (Zorio et al., 2013). Larger companies are expected to hire higher quality services due to their visibility and public pressure (Hummel et al., 2017; Ruiz-Barbadillo & Martínez-Ferrero, 2020).

Larger firms with higher profitability have sufficient resources to cover the higher costs associated with higher quality external assurance processes (Hummel et al., 2017; Ruiz-Barbadillo & Martínez-Ferrero, 2020). To assess this relationship, the profitability variable (PROF) is defined as the return on assets (ROA), which is calculated as the ratio of net income to total assets.

On the other hand, more indebted companies tend to prioritize cost reduction because they face greater financial constraints (Hummel et al., 2017). For this reason, it is possible that these companies opt for more superficial external assurance services. In order to assess this relationship, the variable (DEBT) was measured by the degree of indebtedness, which is represented by the proportion of assets tied up by obligations assumed in the period (ratio of total liabilities to total assets).

The accounting and financial information (total assets, ROA and liabilities) was collected from the Económica database and/or from the financial statements available on each company's website.

3.1.4 Models and techniques for data analysis and processing

The statistical technique used consisted of a hierarchical linear regression model for panel data (HLM), since the dependent variable QASSURANCE is a metric variable that measures the quality of external assurance of sustainability disclosures. The data structure of this research was divided into two levels (HLM2), considering the independent variables of company i that "vary over time" (level 1: repeated measures over time of element $-t, i$) and the independent variables of company i that are "fixed over time" (level 2: element or observational unit $-i$). Equation 1 describes the hierarchical linear regression model for panel data analysis used to test the research hypothesis.

$$QASSURANCE_{ti} = \beta_0 + \beta_1 AUDIT_ASSURANCE_{ti} + \beta_2 SIZE_{ti} + \beta_3 PROF_{ti} + \beta_4 DEBT_{ti} + \mu_{ti} + \tau_{ti} \quad \boxed{1}$$

QASSURANCE represents the dependent variable measured by the disclosure score of the depth and breadth elements of the assurance processes, which ranges from 0 to 17. In addition, β_0 is the intercept of the equation; β_1 , β_2 , β_3 , and β_4 are the receptive parameters estimated with the following explanatory variables: joint provision of audit services and external assurance of sustainability disclosures, size, profitability, and indebtedness; and r_{it} is the random error term of the regression.

4. RESULTS

4.1 Descriptive Analysis of the Variables and Inferential Statistics

Table 4 shows the descriptive statistics for the variables of interest in this study.

As shown in Panel A of Table 4, the assessment of the quality of external assurance of sustainability disclosures, taking into account the elements of the depth of the process and breadth of the external assurance report, ranging from 0 to 17, revealed an average of 11.8987. This result is consistent with previous findings in the literature and provides evidence of the possibility of improving the quality of these services.

Of the 336 external assurance jobs carried out during the study period in question, only four were performed with a high/reasonable level of assurance and three had broad coverage, ensuring the completeness of the report. This suggests that companies tend to hire external assurance services with a limited scope and level, considering cost savings, possibly because they do not consider the added value of a more in-depth review (Farooq & De Villiers, 2019; Gillet, 2012; O'Dwyer, 2011; Park & Brorson, 2005).

Furthermore, as suggested by previous studies (Hummel et al., 2017; Rossi & Tarquinio, 2017; Seguí-Mas et al., 2015), there is room for improvement in the examination of the materiality of assured reports and recommendations for future disclosures

Based on the results presented in Panel B of Table 4, it can be seen that approximately 78% (262/336) of the sustainability disclosures were assured by Big4 audit firms, while 52.08% (175/336) of the contracted providers were affiliated with the audit firms that reviewed the financial statements. This predominance of Big4 firms in the market for external assurance of sustainability disclosures has also been confirmed by previous literature

Additional tests were performed for normality of residuals, multicollinearity, heteroscedasticity, and autocorrelation. The data needed to measure the variables of interest in this study were tabulated in spreadsheets and then analyzed using statistical software such as R version 3.6.0 for Windows, packages "lme4" and "nlme," and Stata® 15. In addition, the Winsor method of 10% of each tail of the distribution was used as a treatment measure for possible outliers in the following variables: QASSURANCE, PROF, and DEBT.

(Fernandez-Feijoo et al., 2016; Hummel et al., 2017; Ruiz-Barbadillo & Martínez-Ferrero, 2020).

The results of the difference of medians test (using the Mann-Whitney non-parametric U test, as shown in Panel C of Table 4), applied to samples that violate the normality hypothesis, revealed significantly ($p < 0.05$) that the quality of external assurance is higher in the sample where there is no joint provision of audit services and external assurance of sustainability disclosures. These findings initially suggest that auditors tend to issue less comprehensive assurance reports, as demonstrated by Hummel et al. (2017) and Rossi and Tarquinio (2017). This evidence may also suggest that the joint provision of these services does not lead to better quality external assurance, contrary to the findings of Ruiz-Barbadillo and Martínez-Ferrero (2020).

With regard to the control variables (as shown in Panel B of Table 4), the average size of the companies during the period analyzed (total assets) is equivalent to R\$34 million, while the average return on assets (PROF) is 3.89%. Furthermore, the average leverage of the companies in the sample was 67.92%. In addition, Table 4 shows a controlled dispersion for the variables of interest, as evidenced by the reduced range of the standard deviations and the proximity between the mean and the median. These results suggest that the winsorization process was effective in reducing the risk of outliers influencing the analysis.

The analysis using the correlation matrix, shown in Table 5, reveals the absence of significantly high coefficients between the dependent and independent variables, as well as between the independent variables themselves.

It can be seen that correlations predominate at moderate (0.40 to 0.69) and low (0.01 to 0.39) levels. These results initially suggest that there are no multicollinearity problems in the models analyzed.

Table 4
Descriptive statistics

PANEL A – Quantitative Variables					
Variable	Mean	Standard deviation	Median	Minimum	Maximum
QASSURANCE	11.8987	0.9752	11.8000	10.6000	13.4000
SIZE	17.3513	1.6517	17.2348	15.0761	20.5063
PROF	0.0389	0.0406	0.0335	-0.0179	0.1093
DEBT	0.6792	0.1732	0.6848	0.3997	0.9204
PANEL B – Qualitative Variables					
Variable	N. of “0” cases		N. of “1” cases		
BIG4	74		262		
AUDIT_ASSURANCE	161		175		
PANEL C - Mann-Whitney U Statistic – QASSURANCE					
AUDIT_ASSURANCE					
	Median		Standard deviation		
Yes	11.6000		0.8384		
No	12.6000		0.9649		
z = 7.059			Prob > z = 0.0000*		

*At the 95% confidence level, it can be concluded that the population medians are different.

Source: Prepared by the authors.

Table 5
Correlation matrix

	1	2	3	4	5
1.QASSURANCE	1				
2.AUDIT_ASSURANCE	-0.3857**	1			
3.SIZE	-0.0364	0.3469**	1		
4.PROF	-0.0996	0.0118	-0.1794**	1	
5.DEBT	0.0254	0.2212**	0.2588**	-0.4817**	1

* and ** represent the 5% and 1% significance levels, respectively.

Source: Prepared by the authors.

4.2 Confirmatory Multivariate Analysis: Hierarchical Linear Regression for Panel Data (HLM2)

Regarding the parametric tests applied to the model, the Shapiro-Francia test showed a significantly low p-value (0.00001), which led to the rejection of the null hypothesis of normality of the residuals. However, considering the sample size (n = 336) and the Central Limit Theorem, the normality assumption can be relaxed.

Correlation analysis and the inflation factor test showed no multicollinearity between the variables in the model (values < 2). The Breusch-Pagan test indicated a significant lack of heteroscedasticity (p = 0.2693).

However, the Wooldridge test revealed autocorrelation in the error terms (p = 0.0002), which led to a correction of the homoscedasticity of the model using the “correlation =” function in the R software.

Table 6 shows the results of estimating the model described in Equation 1.

Table 6 shows that the joint provision of audit services and external assurance of sustainability disclosures negatively affects the quality of external assurance ($\gamma = -0.6833$, $p < 0.01$). This finding indicates that the quality of external assurance of sustainability disclosures decreases by approximately 0.6833 units when the provider is also affiliated with the audit firm responsible for the financial audit. This conclusion is supported by the results of the

difference of medians test, which showed a significantly ($p < 0.05$) higher quality of external assurance in the sample where there is no joint provision of these services.

The results presented in Table 6 confirm **H1** and provide evidence that the joint provision of audit services and external assurance of sustainability disclosures has a negative effect on the quality of external assurance.

According to the discussions in the critical literature (Boiral et al., 2019a, 2019b; Boiral & Heras-Saizarbitoria, 2020), the negative and significant effect observed in the AUDIT_ASSURANCE variable can be interpreted as evidence that reinforces concerns about managerial capture in external assurance services. Moreover, other authors (Boiral & Gendron, 2011; Farooq & De Villiers, 2019; Hummel et al., 2017; Perego & Kolk, 2012) have pointed out that the lack of independence may be due to

the greater influence of the reporting company in defining the contractual terms of the assurance, which in turn affects the quality of the external assurance.

Furthermore, the negative impact of the joint provision of audit services and external assurance of sustainability disclosures on the quality of external assurance can be substantiated by the discussions presented by Boiral et al. (2019b) and Simunic (1984) on ethical issues in the assurance of sustainability reports. Joint provision can create inherent conflicts of interest, where auditors may feel pressured to favor the interests of the client to the detriment of the objectivity and integrity of the information. In addition, joint provision may increase financial incentives for auditors, potentially compromising their independence and impartiality in assessing sustainability disclosures.

Table 6

Results of the HLM2 model

Variable	Coefficient	Standard error	T	P value	Significance	VIF
Constant	11.5011	0.7915	14.5308	0.0000	**	–
AUDIT_ASSURANCE	-0.6833	0.1308	-5.2227	0.0000	**	1.55
SIZE	0.0340	0.0458	0.7421	0.4586		1.32
PROF	-1.7362	1.6207	-1.0712	0.2850		1.41
DEBT	0.2784	0.4752	0.5859	0.5584		1.45
Observations					336	
Log restricted likelihood					-418.9132	
Prob > chi ²					0.0000	
Shapiro-Francia test					<i>p</i> value of 0.00001**	
Breusch-Pagan test					<i>p</i> value of 0.2693	
Wooldridge test					<i>p</i> value of 0.0002**	

* and ** represent the 5% and 1% significance levels, respectively. VIF = variance inflation factor.

Source: Prepared by the authors.

5. CONCLUSIONS

The objective of this study was to analyze the effect of the joint provision of audit and non-audit services on the quality of external assurance of Brazilian companies that assured their sustainability disclosures from 2012 to 2021. One of the main results of this research was to identify a negative and statistically significant effect of the joint provision of such services on the quality of external assurance. These findings suggest that conflicts of interest arising from the proximity between the audit firm and the reporting company may compromise the

independence of the provider and, consequently, the quality of the external assurance services.

It should be noted that this study does not ignore the possibility of transferring specific audit skills and knowledge to external assurance work and recognizes that this synergy can potentially improve the quality of the process. However, due to the lack of minimum and specific quality requirements for external assurance of sustainability disclosures, these processes tend not to contribute effectively to ESG performance, as they

are disconnected from actual organizational practices. This underlines the importance of independence as a fundamental characteristic for the provider to carry out their work in an impartial and high quality manner.

Given that the external assurance of sustainability disclosures can be viewed as a consulting service, the question arises as to whether there is a need for regulations that discourage the joint provision of audit and external assurance services.

In some jurisdictions, such as Europe, the United States and Brazil, financial statement auditors are subject to restrictions on providing consulting services to audited companies. These restrictions apply during the period when the auditors are in direct and ongoing communication with the management of the audited entity, including discussions about internal control deficiencies, necessary accounting adjustments, and identified risks. Regulations that follow an approach similar to that used for financial audits, and that promote the separation of these services, can strengthen the reliability of processes for external assurance for sustainability disclosure and ensure that stakeholders' interests are adequately protected.

The results of this research have theoretical, practical and societal implications. This study contributes to the existing literature by providing evidence that supports the critical perspective on the voluntary use of external assurance services for sustainability disclosures. It also provides insights for future research, highlighting the possibility of exploring provider characteristics and the dynamics of the client-provider relationship as relevant determinants in this context.

We also identified a lack of empirical studies that examine the impact of the joint provision of audit and non-audit services on the quality of external assurance of sustainability disclosures. In this sense, one of the main contributions of this research is to promote a discussion in a context that is different from previous analyses

in the literature, addressing the trade-off between the potential benefits of joint provision of these services and the independence of the provider.

This study highlights significant implications for regulators and assurance providers, and emphasizes the need for greater institutional backing for external assurance services. Defining minimum quality requirements for these services could mitigate managerial capture and strengthen the independence of the provider. In addition, the work is timely given the debates in national and international accounting organizations, such as the CFC and the International Accounting Standards Board (IASB), which are addressing the challenges of external assurance, including sustainability information.

The importance of regulators and accounting professionals improving their skills in the area of sustainability is highlighted, given the predominance of accounting professionals in the external assurance of disclosures in this field. Sustainability information differs from financial information in that it is more diverse, complex and extensive. Therefore, ongoing professional development and the development of specific standards can enhance the ability of providers to perform effective external assurance services.

This study highlights some important limitations, such as the difficulty of conducting sensitivity analyses to assess the quality of external assurance due to the multidimensional nature of the measure proposed by Hummel et al. (2017). It is suggested that future research should explore different measurement approaches in order to strengthen the findings.

Finally, it is also suggested that future research should explore the relationship between the reporting company and the provider. Such research should seek to understand how reporting companies influence the negotiation of the terms of the external assurance contract and how this influence may affect the independence of the provider.

REFERENCES

- Ball, A., Owen, D., & Gray, R. (2000). External transparency or internal capture? The role of third-party statements in adding value to corporate environmental reports. *Business Strategy and the Environment*, 9(1), 1-23. [https://doi.org/10.1002/\(SIC\)10990836\(200001/02\)9:1<1::AID-BSE227>3.0.CO;2-H](https://doi.org/10.1002/(SIC)10990836(200001/02)9:1<1::AID-BSE227>3.0.CO;2-H)
- Boiral, O. (2016). Accounting for the unaccountable: Biodiversity reporting and impression management. *Journal of Business Ethics*, 135(4), 751-768. <https://doi.org/10.1007/s10551-014-2497-9>.
- Boiral, O., & Gendron, Y. (2011). Sustainable development and certification practices: Lessons learned and prospects. *Business Strategy and the Environment*, 20(5), 331-347. <https://doi.org/10.1002/bse.701>
- 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. (2019a). Assessing and improving the quality of sustainability reports: The auditors' perspective. *Journal of Business Ethics*, 155, 703-721. <https://doi.org/10.1007/s10551-017-3516-4>.
- Boiral, O., Heras-Saizarbitoria, I., Brotherton, M., & Bernard, J. (2019b). Ethical issues in the assurance of sustainability reports: Perspectives from assurance providers. *Journal of Business Ethics*, 159(4), 1111-1125. <https://doi.org/10.1007/s10551-018-3840-3>.
- Farooq, M., & De Villiers, C. (2017). The market for sustainability assurance services: A comprehensive literature review and future avenues for research. *Pacific Accounting Review*, 29(1), 79-106. <https://doi.org/10.1108/PAR-10-2016-0093>
- Farooq, M., & De Villiers, C. (2019). How sustainability assurance engagement scopes are determined, and its impact on capture and credibility enhancement. *Accounting, Auditing & Accountability Journal*, 33(2), 417-445. <https://doi.org/10.1108/AAJ-10-2016-0093>.
- Fernandez-Feijoo, B., Romero, S., & Ruiz, S. (2016). The assurance market of sustainability reports: What do accounting firms do? *Journal of Cleaner Production*, 139, 1128-1137. <https://doi.org/10.1016/j.jclepro.2016.08.157>.
- García-Sánchez, I.-M., Raimo, N., Uribe-Bohorquez, M.-V., & Vitolla, F. (2022). Corporate reputation and stakeholder engagement: Do assurance quality and assurer attributes matter? *International Journal of Auditing*, 26(3), 388-403. <https://doi.org/10.1111/ijau.12287>
- Gillet, C. (2012). A study of sustainability verification practices: the French case. *Journal of Accounting & Organizational Change*, 8(1), 62-84. <https://doi.org/10.1108/18325911211205748>.
- Hickman, L., & Cote, J. (2019). CSR reporting and assurance legitimacy: A client-assuror dyad investigation. *Journal of Applied Accounting Research*, 20(4), 372-393. <https://doi.org/10.1108/JAAR-01-2018-0009>
- Hummel, K., Schlick, C., & Fifka, M. (2017). 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>
- International Auditing and Assurance Board. (2024, April). *Elevating trust in audit and assurance: IAASB's strategy and work plan for 2024-2027*. <https://ifacweb.blob.core.windows.net/publicfiles/2024-04/IAASB-Strategy-Work-Plan-2024-2027-Elevating-Trust.pdf>
- Manetti, G., & Toccafondi, S. (2012). The role of stakeholders in sustainability reporting assurance. *Journal of Business Ethics*, 107(3), 363-377. <http://www.jstor.org/stable/41476255>
- Martínez-Ferrero, J., García-Sánchez, I. M., & 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>.
- O'Dwyer, B. (2011). The case of sustainability assurance. Constructing a new assurance service. *Contemporary Accounting Research*, 28(4), 1230-1266. <https://doi.org/10.1111/j.1911-3846.2011.01108.x>
- O'Dwyer, B., & Owen, D. (2005). Assurance statement practice in environmental, social and sustainability reporting: A critical evaluation. *British Accounting Review*, 37, 205-229. <https://doi.org/10.1016/j.bar.2005.01.005>
- O'Dwyer, B., Owen, D., & Unerman, J. (2011). Seeking legitimacy for new assurance norms: The case of assurance on sustainability reporting. *Accounting, Organization and Society*, 36(1), 31-52. <https://doi.org/10.1016/j.aos.2011.01.002>
- Papoutsis, A., & Sodhi, M. S. (2020). Does disclosure in sustainability reports indicate actual sustainability performance? *Journal of Cleaner Production*, 260, 121049. <https://doi.org/10.1016/j.jclepro.2020.121049>.
- Park, J., & Brorson, T. (2005). Experiences of and views on third-party assurance of corporate environmental and sustainability reports. *Journal of Cleaner Production*, 13(10-11), 1095-1106. <https://doi.org/10.1016/j.jclepro.2004.12.006>
- 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>
- Prajogo, D., Castka, P., & Searcy, C. (2021). Paymasters and assurance providers: Exploring firms' discretion in selecting non-financial auditors. *Journal of Business Ethics*, 173(4), 795-811. <https://doi.org/10.1007/s10551-012-1420-5>.
- Rossi, A., & Tarquinio, L. (2017). An analysis of sustainability report assurance statements: Evidence from Italian listed companies. *Managerial Auditing Journal*, 32(6), 578-602. <https://doi.org/10.1108/MAJ-07-2016-1408>
- Ruiz-Barbadillo, E., & Martínez-Ferrero, J. (2020). Empirical analysis of the effect of the joint provision of audit and sustainability assurance services on assurance quality. *Journal of Cleaner Production*, 266, 121943. <https://doi.org/10.1016/j.jclepro.2020.121943>

- Ruiz-Barbadillo, E., & Martínez-Ferrero, J. (2022). The choice of incumbent financial auditors to provide sustainability assurance and audit services from a legitimacy perspective. *Sustainability Accounting, Management and Policy Journal*, 13(2), 459-493. <https://doi.org/10.1016/j.jclepro.2020.121943>.
- Seguí-Mas, E., Bolas-Araya, H., & Polo-Garrido, F. (2015). Sustainability assurance on the biggest cooperatives of the world: An analysis of their adoption and quality. *Annals of Public and Cooperative Economics*, 86(2), 363-383. <https://doi.org/10.1111/apce.12073>.
- Sethi, S., Martell, T., & 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., Vanstraelen, A., & Chua, W. F. (2009). Assurance on sustainability reports: An international comparison. *Accounting Review*, 84, 937-967. <https://doi.org/10.2308/accr.2009.84.3.937>.
- Simpson, S. N. Y., Aboagye-Otchere, F., & Ahadzie, R. (2021). Assurance of environmental, social and governance disclosures in a developing country: Perspectives of regulators and quasi-regulators. *Accounting Forum*, 46(2), 109-133. <https://doi.org/10.1080/01559982.2021.1927481>.
- Simunic, D. A. (1984). Auditing, consulting, and auditor independence. *Journal of Accounting Research*, 22(2), 679-702. <https://doi.org/10.2307/2490671>
- Zorio, A., García-Benau, M. A., & Sierra, L. (2013). Sustainability development and the quality of assurance reports: Empirical evidence. *Business Strategy and the Environment*, 22, 484-500. <https://doi.org/10.1002/bse.1764>