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Restoring trust in sustainability reporting: the enabling role of the external assurance

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In the current scenario characterized by distrust about business contributions to sustainable development, it is necessary to identify new tools to legitimate companies' operations. The main initiatives launched by supranational institutions and standard setters contributed to this goal by providing new reporting standards to encourage companies to disclose their environmental, social, and governance information on a mandatory or voluntary basis. However, the proliferation of reports prepared by companies with different attitudes toward sustainable development underlined the need to identify alternative accountability mechanisms to restore the signaling effects of adopting these technologies. In particular, a key role is covered by external assurance mechanisms, which represent an emerging research stream in accounting research. According to this evidence, our contribution aims to contribute to this debate through a science mapping of the existing knowledge about external assurance. The insights collected revealed that academics identified a set of information about the main constraints and opportunities related to adopting external assurance mechanisms that could support the recent initiatives launched by international organizations.

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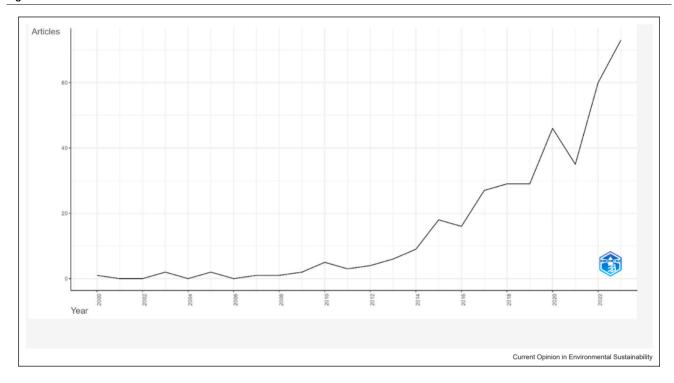
Introduction

The last decade has been characterized by an increasing awareness of the need to legitimate business operations with the implementation of a two-way dialog with stakeholders. Engaging with stakeholders is a crucial issue for enterprises because of the increasing demands for information about the environmental, social, and governance (ESG) impacts related to anthropic activities [1]. According to the European Commission (2022), 60% of Europeans consider it crucial that their savings and investments do not support economic activities that harm the planet [2]. However, merely 34% are aware of whether their private savings and investments are directed toward sustainable economic endeavors, while only 29% receive information about the sustainability impact of financial products or services.

The introduction of strict requirements by regulators has favored the increasing adoption of accountability technologies by worldwide companies. Another relevant contribution has also been provided by financial operators, which have launched many initiatives to promote the adoption of more transparent behaviors by listed companies. Therefore, many companies have started to disclose ESG information on a mandatory basis [3].

Although academics underlined the existence of criticisms related to adopting accountability tools on a mandatory basis, encouraging companies to disclose ESG information is a political strategy directly related to goal 12.6 of the 2030 Agenda [4]. In particular, the 2030 Agenda required the Member States to "Encourage companies, especially large and transnational companies, to adopt sustainable practices and *integrate sustainability information into their reporting cycle*". According to the United Nations, an increase in transparency within financial markets represents a signal of orientation toward more sustainable practices. In this regard, the achievement of the target is measured by considering the total number of sustainability reports disclosed within each country.

However, the quantitative increase associated with sustainability reporting regulation does not necessarily lead to a qualitative increase in the sustainable practices adopted by companies [5]. As evidenced in previous studies, the institutionalization of sustainability reporting processes negatively impacted the signaling effects related to the adoption of these practices by virtuous companies. One of the main implications related to introducing strict requirements for sustainability reporting consists of the widespread adoption of accountability tools by unsustainable companies not



Annual scientific production. Source: Scopus.

interested in actively contributing to sustainable development [6]. Therefore, academics and practitioners agree about the loss of legitimacy of sustainability reports [7,8].

Thus, it is necessary to identify new instruments to restore the signaling effects related to the disclosure of ESG information on a voluntary or mandatory basis. In this regard, academics and practitioners highlighted the potential benefits of the involvement of a third independent external assurance provider in sustainability reporting practices to enhance the reliability of the information disclosed [9,10]. In particular, previous studies underlined that external assurance is positively related to sustainability reporting quality and reliability [11]. At the same time, the relevance of sustainability assurance is also confirmed by the International Accounting and Auditing Standards Board (IAASB), the leading organization in the auditing field. Building on the primary evidence collected over the years, the IAASB (2023) is working on the International Standard on Sustainability Assurance (ISSA) 5000, which will serve as a comprehensive, stand-alone standard suitable for any sustainability assurance engagements [12]. The ISSA 5000 is a profession-agnostic standard, and it will support auditors interested in analyzing and verifying sustainability information reported across any sustainability topic and prepared under multiple frameworks, including the

recently released IFRS Sustainability Disclosure Standards S1 and S2.

According to this evidence, the international debate about sustainability reporting is characterized by an increasing awareness of the need to restore trust in sustainability reporting practices. As evidenced below, the topic's relevance is confirmed by the high degree of attention paid to theory and practice to identify tools and best practices to mitigate this criticism. However, the road to achieving this goal remains characterized by many obstacles related to the lack of evidence about the phenomenon. In fact, despite the positive trends identified by leading institutions (e.g. KPMG, PwC), sustainability reporting still represents an emerging topic within the scientific and professional debates. Consequently, the overall knowledge about adopting specific tools such as external assurance is characterized by high fragmentation because of the topic's novelty.

The state of the art of sustainability reporting assurance

The study employs a bibliometric analysis, a widely adopted methodological approach among management scholars exploring emerging or underexplored research topics [13,14]. Contrary to the traditional literature review, bibliometric methods favor the development of reliable and ex post verifiable analysis by identifying

quantitative metrics that summarize the existing knowledge. Using Scopus as main references' source, the research string employed is as follows:

RS= (TITLE-ABS-KEY (assurance) OR TITLE-ABS-KEY (audit*) AND TITLE-ABS-KEY ("sustainability report*") OR TITLE-ABS-KEY ("Integrated report*") OR TITLE-ABS-KEY ("non-financial report*") OR TITLE-ABS-KEY ("nonfinancial report*")) AND (LIMIT-TO (SUBJAREA, "BUSI")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT-TO (SRCTYPE, "j")) AND (LIMIT-TO (LANGUAGE, "English")).

The sample extraction, conducted in November 2023. yielded 369 articles (Figure 1). The analysis revealed an annual growth rate equal to 20.51%, with a peak of 73 articles in 2023. The documents published are 369, while the number of scientific sources that have considered at least one contribution to sustainability assurance is 146. Interestingly, the number of authors involved in the debate is relatively low, with a total of authors equal to 779.

Regarding the most relevant articles, we considered total citation to explore the intellectual structure of the field [15]. The analysis revealed that Simnett, De Villiers, and Kolk published the most relevant contributions, with 772, 483, and 457 citations. Interestingly, the analysis revealed that relevant contributions were published by nonaccounting journals such as Business Strategy and the Environment, Journal of Business Ethics and European Management Journal. At the same time, it is also relevant that leading accounting journals such as The Accounting Review, Accounting, Auditing and Accountability Journal and Accounting, Organizations and Society (Table 1). In this regard, despite sustainability assurance representing a subfield within sustainability reporting research, it is also considered by the main journals involved in the debate, confirming that it is a relevant academic topic.

Finally, we performed a co-occurrence analysis to map the existing knowledge about sustainability reporting assurance (Figure 2). The analysis revealed the existence of three research clusters that summarize the scientific debate about sustainability reporting assurance in the following groups: stakeholder engagement and credibility (Red Cluster), value creation (Blue Cluster), and business contribution to the SDGs (Green Cluster).

The Red Cluster refers to the issues related to an expectation gap between companies and stakeholders [26]. The expectation gap is summarized by the contributions of the processes related to materiality analysis and stakeholder engagement. Evaluating the materiality

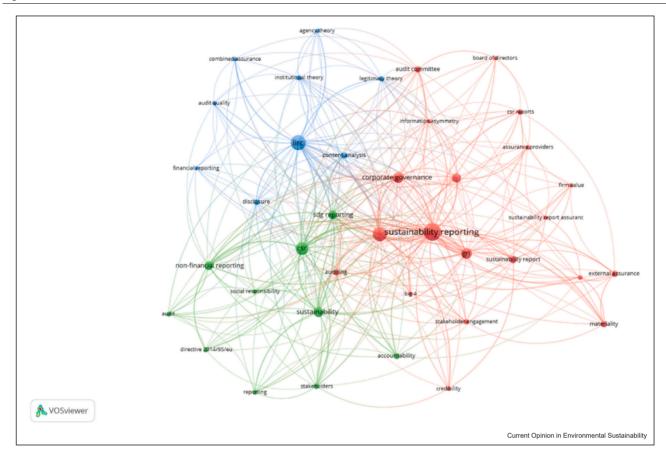
Table 1 Most-cited article.		
Simnett R, 2009, Account Rev [16]	772	51,4
De Villiers C, 2014, Account Audit Account J [17]	483	48,30
Kolk A, 2008, Bus Strategy Environ [18]	457	28,5
Kolk A, 2010, Bus Strategy Environ [19]	422	30,1
Boiral O, 2013, Account Audit Account J [20]	421	38,2
O'dwyer B, 2011, Account Organ Soc [21]	377	29,0
O'dwyer B, 2005, Br Account Rev [22]	375	19,7
Perego P, 2012, J Bus Ethics [23]	300	25,0
Turker D, 2014, Eur Manage J [24]	293	29,3
Peters Gf, 2015, Auditing [25]	229	25,4

approaches companies adopt is a critical task for auditors because of the pivotal role covered by this process on sustainability information reliability [27,28]. Contrary to traditional financial reporting practices, the prioritization of ESG information to disclose on a mandatory or voluntary basis consists of a self-selection of the most relevant topics [29]. Therefore, virtuous companies enhance this process through the involvement of external stakeholders, which contribute to selecting the most relevant topics to analyze in sustainability reports [22]. In this regard, previous studies highlighted that auditors should pay specific attention to materiality because of the need to estimate the reliability of the accountability processes adopted by companies' directors [30,31].

The Blue Cluster consists of a sample of studies about the specific implications of the integrated reporting's external assurance. Academics have widely explored the topic because of the lack of an independent methodological approach to assess the reliability of the information disclosed considering the < IR > Framework [32]. In fact, despite the pivotal role covered by the < IR >, the first wave of studies about integrated reporting assurance adopted a theoretical lens related to the concept of 'combined assurance' because of the need to integrate different assurance protocols proposed by accountants and nonaccountant assurance providers [33-35]. In this regard, academics provided a relevant contribution to the debate by exploring the potential approaches adopted by worldwide auditors to verify the reliability of the information disclosed by integrated reporters [36,37]. Furthermore, many theoretical contributions were developed to systematically analyze the main constraints and opportunities related to the voluntary adoption of external assurance mechanisms [38,39].

Finally, the last cluster regards business contributions to sustainable development. As evidenced in the introduction, regulation represents one of the main drivers

Figure 2



Co-occurrence analysis.
Source: Our elaboration on Scopus data.

that have fostered the adoption of accountability tools by worldwide companies [40,41]. Therefore, regulations indirectly contribute to the scientific debate about sustainability assurance because of the provision of explicit reminders to external auditing by regulators [42]. For instance, Directive 2014/95/EU contributed significantly to the debate, introducing strict corporate reporting requirements [43]. In this regard, many studies considered external assurance as a driver of sustainability reporting quality and transparency [44,45].

Furthermore, the Green Cluster also regards the emerging subfield of Sustainable Development Goals (SDG) reporting. In detail, many studies extended the traditional frameworks adopted by social and environmental accounting scholars to explore the specific contributions provided by companies to the 17 SDG identified by the 2030 Agenda. Therefore, the extension of the traditional framework to SDG reporting indirectly contributed to the development of new insights about the enabling role

covered by external assurance on sustainable business models, confirming that the involvement of external auditors represents an effective way to legitimate the accountability processes [46,47].

Concluding remarks

In the last few years, companies faced new challenges related to the external pressures made by stakeholders about the need to contribute to sustainable development actively. In this regard, many companies started communicating their best practices by adopting new accountability instruments. In particular, many companies started to legitimate their operations considering the voluntary adoption of sustainability reports prepared according to the main international reporting standards guidelines. At the same time, supranational institutions such as the European Commission have provided a relevant contribution that has introduced strict requirements about corporate reporting within the European context.

However, the proliferation of accountability practices generated unexpected consequences related to sustainability reporting's loss of legitimacy. Nowadays, many corporations disclose their ESG information without having a 'real' interest to contribute to the worldwide companies. Therefore, it is more complex for investors and stakeholders to assess the reliability of the ESG information published by companies because of the coexistence of companies with different degrees of attention toward sustainable development.

According to this evidence, it is necessary to identify new instruments for legitimate ESG information. In this regard, a pivotal role could be covered by external assurance, which represents an effective way to collect independent information about sustainability information 'robustness.' The recent initiative launched by the IAASB will contribute to developing a set of standardized guidelines to support this ambitious goal. However, the road ahead to mitigate the overall distrust about the reliability of the ESG information will also require other initiatives.

One of the main goals for enhancing the reliability of ESG information is bridging the knowledge gap between academics and practitioners. As evidenced by the bibliometric analysis, current themes such as the combination of financial and nonfinancial data, SDG reporting, and materiality represent topics academics widely explore. Therefore, the dialog between theory and practice will directly contribute to developing more effective strategies to enhance external auditing processes.

Data Availability

Data will be made available on request.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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The article discusses sustainability reporting among listed companies in the Gulf Cooperation Council (GCC) region. While there has been an overall improvement in sustainability reporting rates over time, a significant majority of listed GCC companies still do not engage in sustainability reporting. Additionally, the use of internationally recognized standards has declined. The study suggests that there may be managerial capture, as indicated by declining trends in the use of recognized standards and a decrease in the number of reports providing information on how material issues are identified.

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The paper highlights the role of Extended external reporting (EER) in rebuilding trust by disclosing crucial business-centric information. Credibility is essential for trust, so the development of assurance techniques alongside EER frameworks is crucial. The document covers participant questions, European regulatory developments, the IAASB's work on ISAE 3000, and forthcoming guidance for EER assurance challenges. It concludes by assessing the future of EER, including changes in the institutional setting, potential standard harmonization, and the distinction between reasonable and limited assurance.

Prinsloo A, Maroun W: An exploratory study on the components and quality of combined assurance in an integrated or a sustainability reporting setting. Sustain Account Manag Policy J 2021. 12:1-29.

The study focuses on combined assurance, positioning it as a function tied to the board of directors' responsibility for accurate reporting and the characteristics of internal and external assurance sources. Combined assurance models, however, tend to be conservative, emphasizing specific disclosures and relying on a limited set of methodologies or frameworks. Rather than adopting a more diverse approach, these models concentrate on individual aspects of integrated and sustainability reports.

34. Hoang H, Phang S-Y: How does combined assurance affect the reliability of integrated reports and investors' judgments? Eur Account Rev 2021, 30:175-195.

The article explores the impact of a new technique called 'combined assurance' on the reliability of integrated reports and investors' willingness to invest in the presence of reporting reliability risks. Combined assurance involves the audit committee coordinating roles of management, internal assurance, and external assurance providers to assess risk management, internal controls, and reporting quality. The study

conducts experiments with various scenarios of reporting reliability risks and finds that communicating combined assurance can restore investors' perceived reliability of reported information and their willingness to invest in situations involving bad news, non-financial key audit matters (KAM) with estimation uncertainty, and financial KAM indicating risks of manipulated financial reporting. The findings have implications for practitioners, standard setters, and regulators seeking mechanisms to enhance the reliability of financial and non-financial information in integrated reports.

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The analysis indicates that notarizing non-financial reports using a publicly available blockchain can serve as a valuable tool to reduce information imbalances between organizations and stakeholders. Despite observed benefits, only a limited number of companies have embraced blockchain systems for ensuring information reliability. The findings suggest that socially responsible organizations have an opportunity to signal their commitment to sustainable development through the adoption of this innovative tool. Additionally, the proliferation of mandatory non-financial reports has diminished the signaling effects associated with disclosure, and the case study underscores the potential for socially responsible organizations to address this issue through notarization.

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