

Non-financial information assurance: A review of the literature and directions for future research

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Abstract

Corporate non-financial information reporting, in the form of sustainability reports (GRI, 2013) and integrated reports (IIRC, 2017), is now a globally established practice (KPMG, 2020). However, stakeholders remain sceptical as to the credibility of these disclosures labelling them as nothing more than corporate green wash (Farooq & De Villiers, 2017, 2018). In response some reporters procure external assurance over their disclosures (Farooq & De Villiers, 2018, 2019). This phenomenon has attracted scholars' attention and there now exists a growing body of literature examining this new form of assurance (Amran & Devi, 2008).

The purpose of this study is to review the literature on non-financial information assurance and to address three inter-related research objectives. First, to assess the current state of academic research in the field by analysing researchers, journals, themes, research methods and theories. Second, to understand the nature of non-financial assurance engagements by structuring the literature around the definition of an assurance engagement (IAASB, 2013, p.7). This definition comprises of five key elements including: (1) a tripartite arrangement, (2) subject matter of assurance, (3) a suitable criterion, (4) sufficient appropriate evidence, and (5) a written assurance report. A combined theoretical lens of accountability and capture to analyse this second research question. Finally, to identify gaps in the literature and provide directions for future research.

The study adopts Massaro, Dumay and Guthrie's (2016) 10 step approach to undertaking a structured literature review. Following this approach, a total of 170 articles were identified, published from 1999 to 2021. These articles were analysed to address the three research objectives.

The study offers several academic and practical contributions. Researchers will benefit from an overview of the literature and guidance on avenues for future research. Auditing lecturers can use the findings from this study to develop content for their courses (e.g., contemporary issues in auditing). This is important given that accounting firms (particularly the Big Four) control a significant share of the market for non-financial assurance engagements Reporting entities, seeking assurance over their non-financial disclosures, will gain from a better understanding of this new form of assurance. Regulatory bodies can use the insights from this study to better inform policy and regulations, such as revising corporate governance codes to encourage non-financial assurance. Assurance practitioners may benefit from the insights offered by scholars, as well as using the literature review to identify research of particular interest.

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Attestation of Authorship

“I hereby declare that this submission is my own work and that, to the best of my knowledge and belief, it contains no material previously published or written by another person (except where explicitly defined in the acknowledgements), nor material which to a substantial extent has been submitted for the award of any other degree or diploma of a university or other institution of higher learning.”

Asem Saad Ali Azantouti

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Chapter 1: Introduction

1.1: Introduction

This chapter provides an introduction to the study. The chapter is divided into eight parts. Following the introduction, section 1.2 discusses the importance of sustainability development and the role of organisations in supporting sustainable development. Section 1.3 examines non-financial reporting, including sustainability and integrated reporting, and how these new accounting practices are used to communicate relevant information to stakeholders. Section 1.4 then introduces non-financial assurance engagements, i.e. sustainability assurance and integrated reporting assurance. Section 1.5 identifies the gaps in the literature, and section 1.6 discusses the contributions arising from this study. The structure of the complete study is presented at the end of this chapter. The conclusion of this chapter is outlined in section 1.7.

1.2: The need for sustainable development

There is growing global concerns for the unsustainable nature of the traditional capitalist economic growth model responsible for the complex inter-related social, environmental, and economic crises facing the world today (Bebbington et al., 2007; Gray, 1992, 2010; Strange & Bayley, 2008). The challenges the world faces include poverty, slave labour, injustice, water shortage, destruction of forests, loss of biodiversity, global warming and climate change require immediate attention (Datt et al., 2018; Flannery, 2005; Green & Zhou 2013). The London based think tank SustainAbility (2015) cautions that the world's ability to endure or support itself is in doubt if it continues on its current path.

Sustainability development is not a new concept and has been used in forest management for the last 17 centuries in Europe (Blewitt, 2012; Lamberton, 1998). The concept gained greater global recognition in 1987 when the UN Brundtland Report emphasized its importance (Gray, 1992, 2010). According to Brundtland Report sustainability development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987, p.41).

Organisations¹ have a significant impact on society and have a pivotal role to play in supporting societal goals of sustainability development (Rosati & Faria, 2019; Scheyvens et al., 2016; Sachs, 2012). Organisations have a responsibility to change the way their operate, viewing sustainable development as more than an economic opportunity, but to fulfil their social duties (Siltaoja & Onkila, 2013; Scheyvens et al., 2016). Responding to stakeholder demands for change, companies disclose non-

¹ Term organisation has been used in this study as research indicates that both private (including profit making and not-for-profit entities) and public sector entities engage in sustainability and integrated reporting (Hazaea et al., 2021).

financial information contained within sustainability reports and integrated reports (Maroun, 2019b; Owen, 2008; Parker, 2010).

1.3: Sustainability and integrated reporting

There is no consensus on how to define sustainability reporting (Bebbington et al., 2007). The Global Reporting Initiative (GRI) describes sustainability reporting as “an organization’s practice of reporting publicly on its economic, environmental, and/or social impacts, and hence its contributions – positive or negative – towards the goal of sustainable development” (GRI, 2016). The GRI definition is used in this dissertation, as the GRI represents the most popular sustainability reporting standard used across the globe today, with 73% of disclosure referring to the GRI standards among the world’s largest 250 companies in 2020 (KPMG, 2020). The GRI was launched in 1997, and in 2000 the first version of GRI guideline published. In a short period of time, the GRI is currently the most widely used sustainability reporting standards in the world today (Brown et al., 2009). According to KPMG (2020) sustainability reporting rates across the globe continue to increase, with 75% of the top 100 companies from 52 countries engaged in sustainability reporting to 80% in year 2020, compared to 75% in 2017 (KPMG, 2020). Reporting rates are higher amongst the world’s largest 250 companies with approximately 96% undertaking sustainability reporting in 2020, compared to 93% in 2017 (KPMG, 2020). These statistics indicate that sustainability reporting is a well-established global practice.

Integrated reporting traces its roots to the International Integrated Reporting Council (IIRC). The IIRC published a framework on Integrated Reporting in 2013. The IIRC (2021) describes an integrated report as “a concise communication about how an organization’s strategy, governance, performance and prospects, in the context of its external environment, lead to the creation, preservation or erosion of value over the short, medium and long term.” (2021, p. 11). The purpose of integrated reports is to enhance the quality of corporate information by linking financial information with non-financial/sustainability information in a single report (De Villiers et al., 2017). According to Goicoechea et al. (2019) integrated reporting is a relatively new practice. KPMG (2020) reports that 22% of the world’s largest 250 corporations issued an integrated report in 2020, up from 18% in 2017. It is important to note that many organisations transitioned to integrated reporting from sustainability reporting, i.e., integrated reporting is a continuation of sustainability reporting (Borgato & Marchini, 2021). Further, 16% of organisations that publish non-financial reports refer to both the IIRC Framework and the GRI standards in combination, i.e., the two are not substitutes but rather complementary non-financial reporting (KPMG, 2020).

1.4: Assurance of sustainability and integrated reports

Organisational stakeholders have questioned the credibility of sustainability and integrated reports, i.e., non-financial reports (Simnett & Huggins, 2015). Some go as far as to describe sustainability reports and integrated reports as simply “marketing” or “rhetorical storytelling” documents (Corrado et al.

2019; Simnett and Huggins 2015). To address stakeholder concerns, managers are opting to secure external assurance over their non-financial information (Farooq and Di Villers 2019; Junior et al. 2014; Park and Brorson 2005). An assurance engagement is defined as “an engagement in which a practitioner aims to obtain sufficient appropriate evidence in order to express a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the subject matter information” (IAASB, 2013, p.7). Thus, non-financial information assurance, such as sustainability assurance and integrated reporting assurance, refers to assurance engagements where a third-party assurance provider is recruited to provide assurance over non-financial information (Farooq & De Villiers 2017, 2019). The aim is to improve the credibility of this information and thereby enhance stakeholder confidence in these disclosures. Thus, non-financial assurance engagements promote accountability to organisational stakeholders.

The use of external assurance among companies globally has increased in the past. According to KPMG (2020) non-financial assurance is steadily increasing among the top 100 companies. The survey conducted among 52 countries found that more than 50% of non-financial reports were externally assured, compared to 45% in 2017 (KPMG, 2020) and 33% in 2005 (KPMG, 2005). Moreover, the survey shows that in 2020 over 70% of the world’s largest 250 corporations externally assured their non-financial reports compared to 67% in 2017.

1.5: Gaps in the literature

The rise in non-financial information assurance has motivated researchers to examine a range of issues related to this new form of assurance. Researchers have examined if third-party assurance can enhance the credibility (perceived or actual) of these disclosures (Beets & Souther 1999; Deegan et al., 2006a; Dando & Swift, 2003); whether, how, and to what extent, stakeholder engagement occurs during the assurance process (Cooper and Owen, 2007); the factors, and processes, driving the demand for third-party assurance (Farooq and De Villers, 2017); the content of assurance statements to assess if they conform to requirements of standards (Adams and Evans 2004; Hodge et al. 2009; Manetti and Becatti 2009; Perego and Kolk 2012)), and the differences in approach to assurance between accounting and non-accounting assurance providers (Ball et al., 2000; Deegan et al., 2006; O'Dwyer & Owen, 2007).

To summarise and consolidate this growing body of literature researchers have undertaken four literature reviews to date. These include works by Farooq and De Villiers (2017), Gillet-Monjarret and Rivière-Giordano (2017), Hazaea et al., (2021) and Venter and van Eck, (2021). While these studies offer useful insights, they suffer from certain limitations. First, Farooq and De Villiers (2017) and Gillet-Monjarret and Rivière-Giordano (2017) review 50 articles from 1998 to 2015, and 56 articles from 1985 to 2015 respectively. While the theoretical insights into the structure of the non-financial assurance market developed by Farooq and De Villiers (2017) remain valid, the reviews undertaken by

these two are now dated as more than 123 journal articles have been published since Farooq and De Villiers (2017) and Gillet-Monjarret and Rivière-Giordano (2017). The works of Hazaea et al. (2021) and Venter and van Eck (2021), while more recent, suffer from other limitations. Venter and van Eck (2021) restrict their review to articles published from 2009 to 2020 and only articles accepted in A*, A and B ranked journals only. These filters result in several insightful studies published prior to 2009 and in C ranked journals (e.g. non-financial information assurance in developing countries) being excluded/ignored on an arbitrary basis from their literature review. Given the cumulative nature of academic research, this approach results in the exclusion of several insightful studies. Further, in their analysis they structured their review around the research methods used in the extant literature (e.g., the findings of case studies, the findings of interview-based studies, the findings of questionnaires etc.). This approach fails to offer a synthesis of the findings from the extant literature. The review by Hazaea et al. (2021) was restricted to articles appearing in the Scopus database. Further, the review is limited to sustainability assurance engagements and fails to cover the literature on the assurance of integrated reports. Also, Hazaea et al. (2021) structure their finding based on a descriptive analysis of the literature.

To address the gaps in the literature this study reviews the literature on non-financial information assurance and to address three inter-related research objectives:

RO1: To assess the current state of academic research in the field by analysing researchers, journals, themes, research methods and theories.

RO2: to understand the nature of non-financial assurance engagements by structuring the literature around the definition of an assurance engagement (IAASB, 2013, p.7). This definition comprises of five key elements including: (1) a tripartite arrangement, (2) subject matter of assurance, (3) a suitable criterion, (4) sufficient appropriate evidence, and (5) a written assurance report. Under each of these five elements the findings of studies examining sustainability assurance engagements and those focusing on the assurance of integrated reports are analysed. A combined theoretical lens of accountability and capture to analyse this second research question.

RO3: to identify gaps in the literature and provide directions for future research.

In doing so the study reviews all journals articles examining non-financial information assurance published in academic journals, including studies published prior to 2009, in C ranked journals, and not limited to any single database (such as Scopus). The literature will be structured based on the five elements of an assurance engagement, as identified in International Auditing Standards which are, (1) a three-party relationship involving (a practitioner, a responsible party, and intended users), (2) appropriate underlying subject matter, (3) suitable criteria, (4) Sufficient appropriate evidence, and (5) a written assurance report. This approach provides a more insightful analysis of the literature than the

approach adopted by Hazaea et al. (2021) and Venter and van Eck (2021) and is based on the research methods deployed by researchers. The analysis around each of these five elements will discuss sustainability and integrated reporting assurance, thereby providing an in-depth understanding of the literature around these two key streams of non-financial assurance engagements.

1.6: Contributions arising from the study

The assurance of non-financial information is critical in enhancing disclosure credibility and building stakeholder confidence (Maroun, 2019). Consequently, there is a need to consolidate the academic literature in this field to assess progress made, understand how the field of non-financial assurance is evolving, and provide directions for future research. The study offers several academic and practical contributions. Researchers can use the study to understand field and identify areas for future research. Academics can use the findings of this research to course content (e.g. contemporary issues in auditing). From a practical perspective, stock exchanges can use the insights when developing corporate governance codes which should press listed entities to secure assurance over their non-financial assurance engagements, including the scope and objectives of such engagements. Further, assurance practitioners can gain from the insights offered, which are structured around the definition of an assurance engagement. Assurance practitioners can use the literature review to identify research of particular interest.

1.7: Summarising the structure of the dissertation

The study consists of five chapters. Following the introduction chapter, chapters two and three present the theoretical framework and the research design respectively. Chapter four presents the findings relating to the three-research objective. Finally, chapter five provides a discussion and conclusion, contributions and limitations of the study.

1.8: Conclusion

In conclusion, assurance of sustainability and integrated reporting are very important for both organizations and their stakeholders and can play significant roles from different angles. Researchers gave this topic more time and effort and the studies covering these topics have risen. The study aims to provide a comprehensive understanding of sustainability assurance as well as integrated reporting assurance and compare between them. In this chapter the study highlights the need of sustainability development as well as the assurance of sustainability and integrated reporting. Also, gaps in literature have been mentioned in this chapter, followed by the contribution arising the research. Next chapter is the theoretical chapter.

Chapter 2: Theoretical

2.1: Introduction

This chapter presents the theoretical lens guiding the research. The chapter is divided into three sections. Section 2.1 provides an introduction to this chapter. Section 2.2 explores the use of non-financial information assurance to promote accountability. Section 2.3 reviews the concept of capture and how this impacts non-financial information assurance engagements. Finally, section 2.4 provides a conclusion to the chapter.

2.2 Promoting accountability through non-financial assurance

Non-financial assurance engagements improve disclosure credibility thereby enhancing stakeholder confidence in sustainability and integrated reports (Farooq & De Villiers, 2019). In this way non-financial assurance engagements promote accountability to organisational stakeholders (Farooq & De Villiers 2017, 2019). Accountability can be defined as “the duty to provide an account (by no means necessarily a financial account) or reckoning of those actions for which one is held responsible” (Gray et al., 1996, p. 38). According to Cooper and Owen (2007), it is an organisation's responsibility to present a realistic explanation of its activities and performance in order to improve organisational responsiveness and transparency towards key stakeholders. Accountability is achieved through enhancement of the credibility of non-financial information through third-party assurance engagement. Indeed, the primary objective of sustainability assurance engagements is to enhance the credibility of the information disclosed in non-financial reports and promote the accountability of organisations (Farooq & De Villiers, 2019). Thus, the assurance of non-financial information enhances organisational accountability to stakeholders, through a presumably independent and unbiased review of the information revealed by organisation (Moroney et al., 2012; Simnett et al., 2009).

However, studies show that many reporters fail to secure external assurance over their disclosures. For example, the KPMG (2020) report indicates that only half of the top 100 companies from 52 countries assured their non-financial reports. This indicates that a significant number of reporters avoid external scrutiny thereby frustrating stakeholder attempts to promote organisational accountability (Farooq & De Villiers, 2017, 2019). Further, Farooq & De Villiers (2020) have noted that when disclosures are subject to external assurance, the scope of non-financial assurance engagements is carefully set to minimise the reporter's accountability, e.g., offering limited assurance over certain sections of the report, thereby indicating the presence of capture in non-financial information assurance (Farooq & De Villiers).

2.3 Capture in non-financial assurance engagements

The term credibility, within the context of non-financial reporting, refers to the reliability of report content and the overall balance of these disclosures, i.e., the inclusion of material good and bad news

(Farooq & De Villiers, 2020). However, if certain sections of a non-financial report are excluded from the scope of the assurance engagement or if the overall balance of the sustainability report are not included in the scope of the engagement, then this dilutes the purpose of non-financial assurance engagements (Smith et al., 2011). This situation potentially indicates the presence of 'capture' which increase the credibility gaps between the assurance providers and stakeholders (Farooq & de Villiers, 2019).

Term 'capture' refers to the risk of powerful interests becoming 'institutionalised,' threatening the independence and objectivity of non-financial information assurance providers (Ball et al., 2000; O'Dwyer, 2003; Owen et al., 2000). O'Dwyer (2003) explains that "capture" occurs when senior management or assurance professionals seize control or 'capture' non-financial information assurance policy and practise by appropriating the terminology and methods to further their own economic and professional goals. Capture has been described as "anathema to the democratic ideals which underpin [sustainability reporting assurance] and poses considerable threats to the process" (Own et al., 2000, p. 86). According to Smith et al. (2011) there are at least two forms of capture, managerial and professional capture.

Managerial capture in sustainability reporting is defined as the control of the sustainability reporting agenda by managers, with a focus on good news only which improve the image of the organisation, instead of being accountable to the society and actually transparent (Cho et al., 2014; Owen et al., 2000; Smith et al., 2011). From an assurance perspective, Farooq and De Villiers (2019) define managerial capture as "management controlling the assurance process to ensure that the scope of the engagement is limited to evaluating the reliability of some, or all of, the sustainability report contents, while excluding the key issue of the balance of the report, or coverage of all material aspects". Researchers have noted the presence of managerial capture in non-financial assurance engagements. For instance, Belal (2002) analysed sustainability reports released by significant market participants in the UK and found that the scope and the method of the assurance were specified by the management. O'Dwyer and Owen (2007) who analysed assurance statements in UK and Europe stated that there is a management control over the assurance process which gives rise to a concern about the assurers' independence. Shen et al. (2020) argue that the independence of the third-party assurance will not only enhance the credibility but will also perfect the confidence of the stakeholders.

Professional capture occurs when assurance professionals demand to make and maintain their commercial interest by entering and developing markets for new services, where growth imperatives are viewed as more important than the public's best interest which is commonly associated with professional services (Smith et al., 2011). According to Farooq and De Villers (2020), while assurance practitioners are interested in exploiting new assurance markets, they control the scope of the assurance process by limiting it to areas seen as less risky. This is done by providing assurance over the reliability

of the data (sometimes excluding certain sections of the report) contained within a sustainability report, while conveniently excluding the key issue of the overall balance of the report from the scope of the assurance engagement. Consequently, assurance providers appear interested in furthering their economic interests while shying away from their duty to promote genuine corporate accountability. The concepts of accountability and capture will be used to frame the analysis in the findings section, specially related to research objective two.

2.4 Conclusion

Accountability plays significant roles in enhancing stakeholder's trust. This can be achieved by providing third-party assurance to non-financial information reports. However, capture (managerial and/or professional capture) can inhibit this process and impact negatively in promoting accountability. In this chapter promoting accountability over non-financial information has been discussed, as well as the capture in non-financial assurance engagements. In the following chapter research design are discussed.

Chapter 3: Research design

3.1 Introduction

This chapter provides an overview of the research design adopted to guide the study. The chapter is divided into four parts. Following the introduction, section 3.2, provides a brief overview of Massaro, Dumay and Guthrie (2016) 10-steps approach to undertaking a structured literature review (SLR). Section 3.3 then explains how this 10-step approach has been implemented in this study. Finally, section 3.4 provides a conclusion to the chapter.

3.2 Structured literature review

This study is guided by Massaro, Dumay and Guthrie (2016) who outline ten-steps researchers should follow when undertaking a literature review. These ten-steps are summarised in table one.

Table 1:

The 10-steps to performing a structured literature review (Massaro, Dumay and Guthrie, 2016)

| Step no | Description |
|---------|---|
| 1 | Prepare a literature review protocol. |
| 2 | Define the research questions that the literature review sets out to answer. |
| 3 | Determine the type of studies to be included in the literature and carry out a comprehensive literature search. |
| 4 | Measure article impact. |
| 5 | Define an analytical framework. |
| 6 | Establish literature review reliability. |
| 7 | Test literature review validity. |
| 8 | Code data using the developed framework. |
| 9 | Develop insights and critique through analysing the data set. |
| 10 | Develop future research paths and questions. |

This 10-step approach has been used in other literature reviews by Cuozzo et al. (2017), Secundo et al. (2020) and Dumay et al. (2015) on Intellectual capital disclosure, Sustainable development, intellectual capital and technology policies and the public sector intellectual capital. A discussion of the application of each step is provided in section 3.3.

3.3 Application of Massaro et al., (2016) SLR in this study

Step one involves drafting a literature review protocol designed to ensure that the review is reliable, repeatable, and ultimately assists in achieving a successful conclusion to the research (Massaro et al., 2016). The protocol for this study involved developing a list of key search words to identify relevant articles for inclusion in the literature review. These words were compiled based on a reading of three articles published in the field and was finalised by comparing it against with search words used by Farooq and De Villiers (2017), Gillet-Monjarret and Rivière-Giordano (2017), Hazaea et al., (2021)

and Venter and van Eck, (2021). The search terms identified include “corporate social responsibility”, “corporate social responsibility reporting”, “Triple Bottom Line”, “Triple Bottom Line reporting”, “corporate citizenship”, “corporate citizenship reporting”, “sustainability”, “sustainability reporting”, “integrated reporting”, “non-financial information” in combination with the terms assurance, verification, and audit”. These key terms were used to search Google Scholar for articles.

The title and abstract of articles generated through the search (search results) were then read and relevant articles downloaded and saved onto a computer folder. Also, articles reference list was reviewed to identify any article missed through the Google Scholar search. Studies which explored both non-financial reporting and the assurance of non-financial reports were included in the review/dataset. No limits were placed on when the articles were published. Consequently, the earliest article in the review was published in 1999 and the most recent in 2021. Similarly, no restrictions were placed on journal rank or type (i.e., articles published in accounting and non-accounting journals were included). This approach is consistent with Farooq and De Villiers (2017) who argue that there should not be any bias against academic work on the grounds of when (year of publication) or where the work is published (rank or type journal of publication). The inclusion of older works is important as they offer useful insights into what non-financial assurance practices were doing in the early days. The inclusion of lower ranked journals ensures that studies examining assurance practices in say developing countries, which sometimes struggle to secure space in top ranked journals, are included, thereby providing a richer analysis of the phenomenon. Finally, non-accounting journals (e.g. Journal of Cleaner Production and Journal of Business Ethics) offer accounting academics an important venue to publish their works.

Step two requires identifying the research objectives that the review seeks to address (Massaro et al., 2016).

RO1: To assess the current state of academic research in the field by analysing researchers, journals, themes, research methods and theories.

RO2: to understand the nature of non-financial assurance engagements by structuring the literature around the definition of an assurance engagement (IAASB, 2013, p.7). This definition comprises of five key elements including: (1) a tripartite arrangement, (2) subject matter of assurance, (3) a suitable criterion, (4) sufficient appropriate evidence, and (5) a written assurance report. Under each of these five elements the findings of studies examining sustainability assurance engagements and those focusing on the assurance of integrated reports are analysed. A combined theoretical lens of accountability and capture to analyse this second research question.

RO3: to identify gaps in the literature and provide directions for future research.

Step three involves determining the type of studies to be included in the literature review (Massaro et al., 2016). This study reviews the literature on non-financial information assurance. Following the protocol, a total of 187 articles published in 56 journals from 1999 to 2021 were identified as relevant. Subsequently, each article's introduction and method sections were read to ensure relevance. This exercise resulted in 17 articles being excluded from the review as they examined internal assurance engagements and not external/third-party assurance engagements or discussed non-financial reporting (either sustainability or integrated reporting) but not the assurance of non-financial disclosures. This process resulted in a final total of 170 articles. Out of these 170 articles, 149 (87.5%) examined the assurance of sustainability reports and 21 (12.5%) articles examined the assurance of integrated reports. Of these 170 articles 109 were published in accounting and 61 in non-accounting refereed journals (Appendix 1).

Step four requires measuring each article's impact (Massaro et al., 2016). "The citation level of each article, according to Google Scholar, was noted. This allows an evaluation of the usefulness of academic work. Although this is an imperfect measure, it is really the only one we have" (Farooq and De Villiers, 2017, p. 2). Similarly, Massaro et al., (2016) state that Google Scholar is a useful data source for determining impact for researchers undertaking a literature review. An analysis of the cite score for each article is presented in the findings (chapter four). Further, appendix 1 provides a summary of the literature sustainability assurance, and the assurance of integrated reporting including the citation level of each article.

The fifth step involves defining an analytical framework (Massaro et al., 2016). As noted earlier, the five elements of an assurance engagement as identified in the IAASB definition of an assurance engagement was used to provide an analytical framework for addressing RO2:

The definition of an assurance engagement as described by the International Audit and Assurance Standards Board (IAASB) is "an engagement in which a practitioner aims to obtain sufficient appropriate evidence in order to express a conclusion designed to enhance the degree of confidence of the intended users other than the responsible party about the subject matter information" (IAASB, 2013, p.7)".

This definition identifies five key elements of an assurance engagements including:

(1) a tri-partite engagement/three-party relationship (involving a practitioner, a responsible party, and intended users); (2) appropriate underlying subject matter; (3) suitable criteria; (4) Sufficient appropriate evidence; (5), and a written assurance report.

These five elements formed the analytical framework guiding the analysis and relate to research objective two (see section 4.3). The 170 articles were read/interpreted and the key themes emerging

from these articles were organised under these five elements. Also, the analysis drew on the concepts of accountability and capture (chapter 2), to provide a further layer of analysis under each of the five elements.

Step five suggests the potential use of a statistical software to assist in reviewing the reliability of the review (Massaro et al., 2016). However, this more suitable for reviews which deal with big datasets. When this is not the case, the analysis can be done manually, and this has been the preferred approach in reviews undertaken by Cuzzo et al. (2017), Farooq & De Villiers (2017), Secundo et al. (2020), and Dumay et al. (2016). Cuzzo et al. (2017) analysed the literature in the field of Intellectual capital disclosure (246 articles), Farooq and De Villiers (2017) reviewed and analysed the literature of sustainability assurance (50 articles), Secundo et al. (2020) analysed the literature in the field of Sustainable development, intellectual capital and technology policies (51 articles), and Dumay et al. (2016) who analysed the literature in the field of integrated reporting (56 articles). These studies do not use software for statistical analysis and instead undertake the review manually.

Step seven requires testing the literature review to ensure validity, particularly external validity which refers to the extent to which the results from a study can be generalized to other contexts (Massaro et al., 2016). In this study, the author read each article, coding the key themes identified (step eight) along with the data set used in the article. Subsequently, when writing up the findings (particularly relating to research question two) the author made an effort to discuss the article's research method (including the data sample). This approach allows the reader to assess the application of the findings to their particular context and is consistent with the approach adopted in Farooq and De Villiers (2017) and Venter and van Eck, (2021).

Step eight involves coding the data using the analytical framework (Massaro et al., 2016). As noted earlier, this coding was undertaken manually, and the coded data recorded on an Excel spreadsheet for further analysis, i.e., to address the three research objectives.

Step nine involves develop insights and critiquing the literature by analysing the data set (Massaro et al., 2016). The coding of meta-data (researchers/authors, journals, research methods and theories) was used to address RO1. The coding of themes (using the analytical framework and concepts of accountability and capture) was aimed at addressing RO2.

Finally, step ten involves developing future research paths and questions (Massaro et al., 2016). The analysis undertaken in step nine (aimed at addressing RO1 and RO2) was then used to identify future avenues for research (RO3). The following chapter presents the findings from this study.

3.4 Conclusion

In conclusion, the author adopted the ten steps of Massaro et al. (2016) SLR as a research design of this study to address the aim of this research. Chapter 4 provides the findings and the answer of the three research questions of this study.

Chapter 4: Findings

4.1 Introduction

This chapter presents the findings from the study. The chapter is structured into five main parts. Following the introduction in section 4.1, section 4.2 addresses the first research objective and provides a review of the academic work in the field. Section 4.3 addresses research objective two and provides a synthesis of the literature on non-financial information assurance. Section 4.4 with the third section addresses research question three and presents avenues for future research. Finally, section 4.5 provides a conclusion to the chapter.

4.2 An overview of the field

This section examines the current state of academic research on non-financial information assurance.

4.2.1 Researchers active in the field

The review identified 300 researchers located in 27 different countries (based on university affiliation) who collectively published 170 articles on non-financial information assurance of which 87.5% (149) were on sustainability assurance², and 12.5% (21) were on integrated reporting assurance³. In terms of sustainability assurance research, the top five countries, by number of researchers, include USA 17% (47), Australia 15.5% (42), UK 12.5% (34), Spain 8% (22), and France and Netherlands 5% (13) each. The top five countries, in terms of the number of articles published, is Australia (26), USA (21), UK (20), Spain (17), and France and Netherlands (9 each) (Appendix 2). In terms of citations the top five countries include UK (4126 citations), Netherlands (3726 citations), USA (2934 citations), Australia (2752 citations), and Spain (1229 citations).

In terms of integrated reporting assurance, the top five countries, by number of researchers, include Italy, Australia and USA 17% (5 each), South Africa 14% (4), and Germany and Spain 10% (3 each) (Appendix 1). In terms of articles published, the top five countries include South Africa (6), Australia (4), followed by Italy, Germany, and USA (2 each). In terms of citations the top countries include Australia (377 citations), Germany (312 citations), South Africa (273 citations), USA (189 citations), and Netherlands (179 citations).

These 300 researchers comprised of 260 scholars who published work on sustainability assurance, 29 researchers who examined the assurance of integrated reports, and 11 researchers who published articles examining on both sustainability and integrated reporting assurance. Out of the 300 researchers 99%

² Out of 149 of sustainability assurance articles, 18 articles were published by one author, 24 by two authors from the same university, 25 articles by two authors from different universities (might be in the same country) and the remaining (82) by three authors or more.

³ In terms of integrated reporting assurance, four articles were published by one author, nine articles by two authors from the same university, one article by two authors from different universities, and the rest by three authors or more.

are academics while 1% are practitioners representing assurance providers such as KPMG (Daniel Smith), Deloitte (Philippa Jones) and Banarra (Richard Boele).

The review notes that 24% (64) of the sustainability assurance researchers and 14% (4) of the integrated reporting assurance researchers, published more than one article, while the majority of researchers (76% and 87% respectively) have published only a single paper on the field. The top five active researchers in the field of sustainability assurance, by number of articles, include Wendy Green 5.5% (8), Isabel María García-Sánchez 5% (7), Roger Simnett 5% (7), David L. Owen 4% (6), and Jennifer Martínez-Ferrero 4% (6) (Appendix 3). The top five impactful researchers, by Google Scholar citations, include Roger Simnett (1263), Ann Vanstraelen. (1263), & Wai Fong Chua (1263), and Stuart M. Cooper and David L. Owen (864) (Appendix 1).

In terms of the integrated reporting assurance, the top five researchers, based on articles published, include Warren Maroun 24% (5 articles), Merve Kılıç 10% (2 articles), Ali Uyar 10% (2 articles), Cemil Kuzey 10% (2 articles) (Appendix3). The top five most impactful researchers by (google citations) include Roger Simnett and Anna Louise Huggins (281 citations), Patrick Velte and Martin Stawinoga (247 citations), and Jenna J. Burke and Cynthia E. Clark (170 citations) (Appendix 1). The top five impactful researchers, as per Google Scholar citations, include Roger Simnett (281 citations), Anna Louise Huggins (281 citations), Patrick Velte (247 citations), Martin Stawinoga (247 citations), and Daniel Reimsbach, Rüdiger Hahn and Anil Gürtürk (179 citations) are the top five researchers.

4.2.2 Journals providing space to this field

The review identified 52 journals which published works on sustainability assurance, of which 56% (29) published more than one article on the topic. The top five journals, by number of articles, include the Journal of Business Ethics (15), Auditing: A Journal of Practice & Theory (13), Accounting, Auditing & Accountability Journal (10), Sustainability Accounting, Management and Policy Journal (9), and Business strategy and the environment (7). Out of these 52 journals, 65% (34), are classified as accounting journals, 19% (10) are management journals, and the remaining are from other fields such as: sustainability, finance, and economic journals. Appendix 4 shows the name of the journals and the number of papers each journal published.

The review identified 14 journals which had published works on the assurance of integrated reports, of which four published more than one article on the field; European Accounting Review 28% (four), Accounting, Auditing & Accountability Journal 21% (three), Sustainability 14% (two), and Sustainability Accounting, Management and Policy Journal 14% (two). These 14 journals include nine accounting journals, five management journals and one sustainability focused journal. This indicates that accounting research is provided space in non-accounting journals. Appendix 5 shows the journals' name and the number of papers each journal published.

4.2.3 Key themes arising

In terms of sustainability assurance, the review revealed a total of 27 themes that have been examined in the literature (Appendix 6). The top five most popular themes include; examining the quality of assurance engagements, factors that impact the quality of sustainability assurance engagements, factors driving organisations to assure their sustainability reports, assurance standards used, and the impact of assurance on stakeholder perceptions of disclosure credibility (Appendix 1). The top five least examined themes include managerial and professional capture, other potential roles that sustainability reporting assurance plays, factors influencing organisations choice between assurance provider type, assurance services and accountability, and the competition between accounting and non-accounting assurance providers (Appendix 1).

With regards to the assurance of integrated reports, the review revealed a total of 13 themes which have been examined in the integrated reporting assurance literature (Appendix 6). The top five themes are the role of assurance in enhancing information quality/credibility, the significance of assurance to users, assurance standards used, the global diffusion of assurance. The top five least examined themes include factors that enhance organisations to adopt combined assurance, combined assurance and its impact on the investors' decision, the relationship between culture value and providing assurance to integrated reporting, the assurance of integrated reports and its effect on the market value, stock liquidity and analyst prediction, and examine integrated reporting assurance from the perspective of assurance providers (Appendix 1).

4.2.4 Research methods commonly used

Studies examining sustainability assurance engagements rely on several different methods to achieve their objectives. The three most common research methods used are, regression analysis with 33% (49 papers), followed by content analysis and review of sustainability assurance statement 20% (30 articles), and in-depth (semi and unstructured interviews) interviews, structured interviews (survey/questionnaire) 10% (15 papers) each, literature review 3% (four papers), and theoretical models 2% (3 papers) (Appendix 7).

In terms of integrated reporting assurance, the review notes that the two most common research methods used include regression analysis 38% (8 papers), in-depth (semi and unstructured interviews) interviews 19% (4 articles), and literature review 5% (1 articles) (Appendix 8).

4.2.5 Theories used

In terms of sustainability reporting assurance, 81 (54%) articles were descriptive studies, i.e., did not use a theoretical framework (Appendix 9). Of the studies that did use a theoretical lens, the most popular theories include legitimacy theory (7% or 11 articles), multi-theory (7% or 11 articles), neo-institutional theory (6% or 9 articles), and stakeholder theory (4% or 6 articles).

Similarly, in terms of the assurance of integrated reports, the use of a theoretical lens is rare. Out of the 21 studies published only four articles applied different theories in their studies. For instance, Maroun (2019b) used the theory of framing, while Uyar et al. (2021) and Briem and Wald (2018) used different combined theories including stakeholder theory, and the diffusion of innovations theory respectively. These statistics indicate that Farooq and De Villiers (2017) observations of the lack of theorisation in the field of non-financial assurance unfortunately remain valid.

4.3 A review of assurance of sustainability and integrated reports

This section provides a review of the literature on the assurance of sustainability and integrated reports and addresses the second research objective. The section structures the literature around the five elements of an assurance engagement: a tripartite engagement, subject matter of assurance, suitable criteria, sufficient appropriate evidence and a written assurance report (IAASB, 2005). The findings are framed according to the combined theoretical lens of accountability and managerial capture.

4.3.1 A tripartite engagement

Assurance engagements are tripartite engagements involving an assurance practitioner, responsible party, and intend users (IAASB, 2005, P.10). “A practitioner may be requested to perform assurance engagements on a wide range of subject matters. Some subject matters may require specialized skills and knowledge beyond those ordinarily possessed by an individual practitioner” (IAASB, 2005, P.11).

Sustainability assurance is a voluntary undertaking in most jurisdictions, with certain exceptions such as France, Australia, and South Africa (Ackers & Eccles (2015)⁴). The lack of regulation has given rise to a diverse landscape where engagements of varying scopes and objectives are undertaken by different types of assurance practitioners who undertake this service by adopting different assurance standards and methodologies (Farooq and De Villiers, 2017).

⁴ South Africa was the first country to mandate sustainability assurance (Ackers, 2009). According to Ackers and Eccles (2015) the Johannesburg stock exchange (JSE), although being optional, mandates that all listed firms adhere to the King III guidelines, which includes offering independent CSR assurance.

Table 2:

Factors impacting organisations' decision to adopt assurance of non-financial (sustainability reports)

| Studies | Country | Description | Positive correlation | Negative correlation | No / weak correlation |
|--------------------------------|-------------------------------|--|----------------------|----------------------|-----------------------|
| Mock et al. (2007) | 21 countries | Organisation operating in environmental sensitive sectors such as (mining and oil) | ✓ | | |
| Kolk and Perego (2010) | 5 countries | Stakeholder-oriented countries Weaker governance enforcement regimes | ✓ ✓ | | |
| Perego and Kolk (2012) | Multi countries | External institutional pressures Internal resources and capabilities | ✓ ✓ | | |
| Sierra et al. (2013) | Spain | Company size Leverage Return on equity Return on assets Industry Listing status | ✓ ✓ ✓ ✓ | ✓ ✓ | ✓ |
| Branco et al. (2014) | Portugal | Size Leverage Profitability Unlisted companies (stock exchanged) Type of ownership | ✓ ✓ ✓ | ✓ | ✓ |
| Cho et al. (2014) | USA | Industry membership Disclosure extensiveness | ✓ ✓ | | |
| Darus et al. (2014) | Malaysia | Managerial behaviour (such as risk towards corporate reputation and the exposure to public scrutiny) | | ✓ | |
| Herda et al. (2014) | Compustat Global databases | Countries with weaker investor protection mechanisms | ✓ | | |
| Fernandez-Feijoo et al. (2015) | 22 countries | Legal system of the country (the origin of the law, legal enforcement and pressure towards sustainability) Listing status | ✓ | | ✓ |
| Gillet-Monjarret (2015) | France | Media pressure Company size Industry (e.g., oil and gas) | ✓ ✓ ✓ | | |
| Kend (2015) | UK and Australia | Audit fees Presence of audit committee Presence of sustainability committee | ✓ | | ✓ ✓ (weak) |
| Peters and Romi (2015) | | Presence of sustainability-oriented corporate governance mechanisms | ✓ | | |
| Seguí-Mas et al. (2015) | 25 countries | Shareholder-oriented countries Stakeholder-oriented countries | | | ✓ ✓ ✓ |

| | | | | | |
|----------------------------|-----------------|---|------------------|---|----------------------|
| | | Membership of sensitive industry | | | |
| Zhou et al. (2016) | Multi countries | Business culture Shareholder-oriented countries Strong corporate governance | ✓ ✓ | ✓ | |
| Rossi and Tarquinio (2017) | Italy | Presence of CSR committees Membership of Sensitive industry organisation Presence of sustainability officer Internal audit function | ✓ ✓ | | ✓ ✓ |
| Liao et al. (2018) | China | Board size Female directors Board independence Separation of CEO and board chairman Overseas background of the CEO Well-governed organisations | ✓ ✓ ✓ | | ✓ weak ✓ ✓ |
| Sellami et al. (2018) | France | Existence of CSR committee Power of some groups of stakeholders (e.g., employees, environment and customers) | ✓ ✓ | | |
| Bollas-Araya et al. (2019) | 28 countries | Shareholder-oriented countries Stakeholder-oriented countries Less sensitive sectors Company size | ✓ ✓ | ✓ | ✓ |
| Clarkson et al. (2019) | 40 countries | High CSR commitment | ✓ | | |
| Dutta, (2019) | Finland | Leverage Company size | ✓ ✓ | ✓ | |
| Chen and Cheng (2020) | Taiwan | Family-owned businesses | | ✓ | |
| Hassan et al. (2020) | Bangladesh | Industry membership Company size Reporting format (where organisations disclose their sustainability information) | ✓ ✓ | | ✓ |
| Simoni et al. (2020) | Multi countries | Maintain good relations with stakeholders Business ethics controversies | ✓ | | ✓ |
| Baboukardos et al. (2021) | 47 countries | Profitability Company size Integrated thinking Leverage | ✓ ✓ ✓ ✓ | | |

It can be seen from the table that there is disagreement in the results of the factors which impacts organisations decision in providing assurance to their reports. For example, the size of the organisation in some studies find that it has a positive impact (Baboukardos et al., 2021; Dutta, 2019), while in some other studies has no impact (Bollas-Araya et al., 2019).

Table 3:

Factors impacting organisations' decision to adopt assurance of integrated reports

| Studies | Country | Description | Positive correlation | Negative correlation | No correlation |
|---------------------|-----------------|---|----------------------|----------------------|----------------|
| Kılıç et al. (2019) | Multi countries | Ethical business environments Less effective boards Weak auditing and reporting standards | ✓ ✓ ✓ | | |
| Uyar et al. (2021) | Multi countries | High collectivism among people Low power distance Masculine values rather than feminine values High uncertainty avoidance Long-term orientation High level of Indulgence | ✓ ✓ ✓ | ✓ ✓ ✓ | |

4.3.1.1 Assurance provider

The literature broadly categorises these assurance providers into two groups constituting of accounting and non-accounting assurance providers. The first forms a relatively homogenous groups comprising of mainly big four accounting firms as well as other accounting firms (Farooq and de Villiers 2018; Kolk and Perego, 2010). In comparison, the second comprise of a more diverse group of big and small organisations including sustainability consultants, certification providers, and industry experts.

The market share of accountants has increased over the years. For example, in Australia Deegan et al. (2006a) found that only 15% of sustainability assurance statements were assured by accountants in 2002. Another study showed that in 2005 accountants' market in Australia increased to 55% (Bepari and Mollik, 2016). In 2007 Gillet (2012) found that accountants controlled the market in France. Similar in Italy, Larrinaga et al. (2020) stated that in 2007, 77% of assurance statements published by listed companies in Italy were issued by accountants. Similarly, in South Africa accountants controlled 70% of the market in 2006 (Manetti & Becatti, 2009). Studies showed that the market share of accountants has continued to increase. For instance, Zaman et al. (2021) report that in 2018 and 2019, in Australia 97% in both years, and in New Zealand 71% and 75%, of assurance statements were published by accountants. Globally, in 2010, Accountants controlled more than 56% of the non-financial information assurance market (Junior et al., 2014). According to KPMG (2015), accountants market share rose to 64% in 2015 (among the N100 companies in 45 countries) and 65% (among the world's largest 250 companies). Thus, non-accountants are experiencing a declining market share in many countries, with reporters preferring to hire accountants (Richard and Odendaal 2020). The exception to this is the USA and UK, where non-accountants continue to dominate the market particularly amongst companies operating in environmentally sensitive industries such as mining companies (De Moor and De Beelde, 2005; Larrinaga et al., 2020). For example, Larrinaga et al. (2020) compared the sustainability assurance

statements published by reporters based in Italy and USA and found that non-accountants were leading the assurance market in the USA.

Researchers speculate around the reasons driving this growth. Some studies argue that it is perhaps the stronger reputation of the big 4 accounting firms that is driving their growth (Pflugrath et al. 2011; Zorio et al. 2013). However, researchers have noted that amongst stakeholders, internal stakeholders (such as managers) prefer to hire accountants, while external stakeholders (such as investors) lean more towards non-accountants (Wong and Millington, 2014). However, Farooq and De Villiers (2018, 2019) note that in comparison to the UK, internal stakeholders in Australia and New Zealand, lean more towards accountants. The recent spike in the market share of accountants is due to the big fours acquisition of smaller non-accounting assurance providers (Zaman et al., 2021). For example, in 2015 Banarra was acquired by KPMG, as well as EY took Net Balance in 2014 (Zaman et al., 2021).

When comparing the relative strengths and weaknesses of the two groups, three key attributes are discussed. First, researchers note that accountants lack knowledge of the subject matter of assurance (sustainability) and are relatively less experienced in assuring non-financial information (Beets & Souther 1999; Gillet, 2012). On the other hand, non-accountants lack experience in assuring information more generally (Channuntapipat, 2019). Consequently, some researchers and practitioners recommend using multi-disciplinary assurance teams of accountants and non-accounting subject matter experts (Wallage, 2000). Second, assurance providers must maintain their independence and objectivity when undertaking their work (Ackers, 2017a, b; Adams and Evans, 2004; Green et al., 2017; Gillet-Monjarret, 2021). Boiral et al., (2019a), who interviewed 38 assurance providers based in 5 regions (including Europe, Africa and Asia) examine how assurance providers understand and deal with the ethical issues and find that commercial pressures (such as assurance contract negotiations) and familiarity threats (due to long term relationship) undermine the integrity and independence of assurers, which subsequently affect the quality of the assurance service. However, Park and Brorson (2005) argue that a close relationship is beneficial as the industry-specific nature of non-financial reporting requires more time for assurance providers to be familiar with company activities. Despite the importance of independence and objectivity, assurance statements often fail to provide a clear statement on the assessor's independence (O'Dwyer and Owen, 2005). Further, studies find that non-accountants refer to their independence more than accountants in their assurance statements (O'Dwyer and Owen, 2007). Some scholars counter, arguing that accountants are better equipped to preserve their independence due to their size advantage, i.e. less reliance on one client (Boiral et al., 2019; Perego and Kolk, 2012; Simnett et al., 2009; Wong et al., 2016). Moreover, accountants have extensive experience and wider knowledge of assurance (and independence) due to their work in financial auditing (Gray, 2000). Also, accountants (particularly the big four) have established worldwide networks and a strong reputation which gives them an advantage over non-accountants (Martínez-Ferrero & García-Sánchez, 2018). Thus, O'Dwyer and Owen (2005), in their content analysis of assurance statements of 41 assurance statements from UK

and Europe, conclude that independence of assurance providers can affect positively on the quality of the report assurance.

Third, studies investigating the quality of assurance engagement and type of assurance provider provide mixed results (table 4). For example, Moroney et al. (2012) examined the quality of 74 assurance statements published by the top 500 companies in Australia over a period 2003 to 2007 and concludes that while external assurance improves the quality of disclosures, there was no discernible variation in the quality of the report when it assured by accountants or non-accountants. However, Bolas-Araya et al. (2019), who examined factors impacting the adoption of sustainability reporting and seeking for assurance practice, as well as the quality of the assurance service by analysing assurance statements in 28 countries, conclude that accountants provider higher quality assurance reports compared to non-accountants. These findings were consistent with Zorio et al. (2013) who examined assurance practices in Spain from 2005 to 2010 and Martínez-Ferrero et al. (2018) who examined assurance practices in 17 countries over eight years from 2007 to 2014.

Studies which examined the quality of published sustainability assurance statements note that statements published by accountants are of a higher quality than those published by non-accountants (Ballou et al., 2012; Ballou et al., 2018; Channuntapipat et al., 2020; Darnall et al., 2009 Fuhrmann et al., 2017; Gürtürk & Hahn, 2016; Martínez-Ferrero et al., 2018; Perego, 2009; Ruiz-Barbadillo & Martínez-Ferrero, 2020).

Researchers have also sought to examine the factors that influence organisations to seek non-financial information assurance (table 2), as well as factors that drive reporters to seek non-financial assurance from accountants (table 5).

Table 4:

Factors impact the quality of assurance over sustainability reports

| Studies | Country | Description | Positive correlation | Negative correlation | No / weak correlation |
|---|--------------|--|----------------------|----------------------|-----------------------|
| Moroney et al. (2012) | Australia | Type of assurance provider Assurers experience | ✓ | | ✓ |
| Green and Taylor (2013) | Australia | Ethical standards of assurance leader Ethical standards of the assurance team Integrity of the reporting company | ✓ ✓ ✓ | | |
| Seguí-Mas et al. (2015) | 25 countries | Non-accounting assurance providers* | ✓ | | |
| Martínez-Ferrero et al. (2018) | 17 countries | Assurers Industry specialisation Accounting assurance providers | ✓ ✓ | | |
| Ruiz-Barbadillo and Martínez-Ferrero (2020) | 22 countries | Assurers Industry specialisation Industry specialization | ✓ ✓ | | |

* Non accounting assurance provider have a stronger correlation/impact on disclosure quality

Table 5:

Factors impact the decision to choose an accounting assurance provider

| Studies | Country | Description | Positive correlation | Negative correlation | No / weak correlation |
|--------------------------------|-----------------|---|----------------------|----------------------|-----------------------|
| Kolk and Perego (2010) | 5 countries | Countries with a lower level of litigation | ✓ | | |
| Fernandez-Feijoo et al. (2015) | 22 countries | Legal system of the country | | | ✓ |
| Wong et al. (2016) | UK and USA | Size Profitability Liquidity | ✓ ✓ ✓ | | |
| Zhou et al. (2016) | Multi countries | Stakeholder-oriented countries Strong corporate governance mechanisms | ✓ ✓ | | |
| Bollas-Araya et al. (2019) | 28 countries | Size | | | ✓ |
| Clarkson et al. (2019) | 40 countries | Higher CSR commitment | ✓ | | |
| Datt et al. (2019) | USA | Countries with stronger climate protection Stakeholder-orientation countries | ✓ ✓ | | |
| Reverte, (2021) | Spain | Investment decision-making | | | ✓ |

In comparison, in the assurance of integrated reports, researchers note that assurance providers play a pivotal role in enhancing the quality of the information provided in the integrated reports. Similar, to

the market for sustainability assurance services, integrated reporting assurance is relatively new practice, and it is also a voluntary undertaking in most jurisdictions. Exceptions include South Africa which require companies to seek assurance service to their reports. However, does not specify what type on assurance should companies provide. About the assurance providers, from the existing literature they are the same assurance providers of sustainability reports, accounting, and non-accounting assurance providers as sustainability assurance. The existing literature showed that accounting assurance providers dominant most markets including South Africa, France, and internationally (Gillet, 2012; Richard & Odendaal, 2020; Perego, 2009).

Richard and Odendaal (2020) examined the diffusion of assurance providers, the assurance level, and the standards commonly used in integrated report assurance in South Africa, the study used mixed method of content analysis of the integrated reporting of 40 companies and semi-structured interview. The Authors found that the four big accounting firms are the leaders (65% of the sample) of the assurance providers of integrated reports in South Africa and this domination might be due to some reasons such as the reputation of these 4 big companies, and the common belief that these big four accounting firms provide a better quality of assurance. Moreover, Caglio et al. (2020) document that if the assurance of integrated reporting provided by nonaccountant this gives a negative signal to financial analysts in terms of reputation. However, Burke and Clark (2016) interviewed 19 participants from both suppliers and demanders of integrated reports. Regards to the assurance providers, the study highlighted two main problems facing this field, first problem is that the variety of assurance providers might lead users to difficulties understanding the context. Second, the lack of existing standards guiding the assurance providers about the level of assurance they can provide.

In addition, assurance does enhance the quality of the information provided in the integrated reports, especially if the assurance obtained by one of the big four accounting firms (Maroun, 2019a; Caglio et al., 2020). For example, Maroun (2019a) conducted a study in South Africa focusing on the corporate reports from 2011 to 2016 in the top 50 listed companies to find out whether the quality of integrated reports will be enhanced by providing a third-party assurance. The study notes that external assurance is one of some key factors (the others being internal assurance, risk management) that enhance the quality of integrated reports. Further, the quality of integrated reports is higher when the assurance practitioner is a big four accounting firm. Similarly, Caglio et al. (2020) investigate the relationship between textual characteristics (such as reading difficulty, verbosity, and biased tone) and the assurance of integrated reports, as well as the economic implications in the South African context from year 2011 to 2016. The study argues that credibility of integrated reports is greater when assurance is obtained from the big four accounting firm. While Briem and Wald (2018) conducted research using three different theories (agency theory, the diffusion of innovations theory, and institutional theory) to find out the roles that auditors play in implementing integrated report assurance. The study finds that

assurance providers play a critical role as change agents in the implementation of integrated report assurance, and in the application and interpretation of International Integrated Reporting Council Standards (IIRC).

Table 6:

Factors impacting quality of assurance of integrated reports

| Studies | Country | Description | Positive correlation | Negative correlation | No correlation |
|-----------------------|-----------------|--|----------------------|----------------------|----------------|
| Akisik and Gal (2019) | Multi countries | Accounting assurance providers | ✓ | | |
| Maroun (2019a) | South Africa | Accounting assurance providers Size Industry membership (environmentally sensitive) | ✓ | | ✓ ✓ |
| Wang et al. (2020) | South Africa | Presence of audit committee Expertise of the board of directors | ✓ | | ✓ |

4.3.1.2 Responsible party

In terms of responsible party, researchers note that the boards of directors are ultimately responsible for the integrity of non-financial disclosures. Practitioners typically engage with directors the most during the assurance process, particularly to set the scope and objectives of the engagement (Junior et al., 2014). However, directors often limit the scope of assurance engagements and dictate what assurers should focus on, thereby raising concerns over assurers' independence and the presence of managerial capture (Bepari and Mollik, 2016). Consequently, such assurance engagements appear to be less about enhancing disclosure credibility and promoting accountability and more focused on internal assurance aimed at value addvaluation (Farooq & De Villiers, 2020). Further, O'Dwyer and Owen (2005) state that only 37% of the assurance statements they analysed clearly identified the scope of the engagement.

Similarly, Haider and Nishitani (2020) found that the demand for external assurance amongst Japanese business managers was low, even though the same managers perceived assurance as a useful credibility enhancement tool. O'Dwyer (2011) who aims to improve the knowledge of how assurance practitioners have sought to establish sustainable assurance practices by interviewing assurance providers from accounting firms in Europe stated that assurance providers have to provide recommendation to their customers in terms of how to improve the systems of the organisation and the processes.

Some other studies looked at the various corporate governance characteristics and how they impact external assurance. For instance, Kend (2015) finds that audit committee has a positive impact on the decision of providing external assurance in the listed companies in UK and Australia. Similar in China, according to Liao et al. (2018) Chinese companies are more likely to receive assurance if their boards are larger, include more female members, and separate the CEO and chairman roles. Further, Ruiz-

Barbadillo and Martínez-Ferrero (2020) document that audit committee play significant role in promoting the quality of sustainability assurance. Zaman et al. (2021) state that the independence of audit committee membership, the market expertise, and meeting attendance of members of the audit committee are all positively correlated with the quality of sustainability assurance.

In terms on the assurance of integrated reports: responsible party is defined as “the person (or persons) who In a direct reporting engagement, is responsible for the subject matter, or in an assertion-based engagement, is responsible for the subject matter information (the assertion), and who is ordinarily provides the practitioner with a written representation that evaluates or measures the subject matter against the identified criteria, whether or not it is to be made available as an assertion to the intended users” (IAASB, 2005, P.11-12). From the limited literature of the assurance of integrated reports, Wang et al. 2020 examined the importance of corporate governance in describing the difference in the quality of IR, and mechanisms of the enhancement of the quality of IR in South Africa. The study finds that enhancing the quality of integrated reports is positively correlated with the experience of the audit committee and the board of directors.

The review identified only one study Richard and Odendaal (2020) investigated to whom the assurance of integrated reports addressed. The study concluded that none of the assurance of integrated reports the study covered had addressed to stakeholders, and merely prepared for directors of the organisations.

According to Caglio et al. (2020) assurance plays a fundamental role to enhance the economic benefit that organisations can gain from integrated reports and also can decrease the analysts’ forecast dispersion. Thus, managers should seek assurance to the organisations’ integrated report and put it as a priority in their strategy in order to provide these benefits to the organisation. Furthermore, managers can also contribute to enhance the quality of the information provided in the integrated report. Management can play an important role to enhance the quality of the integrated reports by two things: the type of assurance the manager is seeking and who is providing the assurance (Velte & Stawinoga, 2017). Moreover, managers supposed to act in the best practice when they manage the organisation, thus, providing assurance to integrated reports can generate benefit to the organisation.

Akisik and Gal (2019) explore the relationship between the integrated reports, the external assurance, and the financial performance in North American companies from 2011 to 2016. The study used (stock price growth, return on equity, and return on assets) as a measurement, it concludes that there is a substantial and favourable relationship between the integrated reports and financial performance and this connection will be higher when the assurance provided by accounting firms. Nevertheless, Kılıç et al. (2019) explore if the ethical and accountability environment impacts the voluntary assurance need for integrated reports. The study stated that an effective manager has less attention to provide assurance to integrated reports, which indicates that effective board can be a positive signal to stakeholders about

the credibility of the reports. A recent study by Maroun and Prinsloo (2020) examined the combined assurance (three lines of defense) in South Africa and the factors that lead organisations to adopt this type of assurance. The data collected from the top 50 companies listed on the Johannesburg Stock Exchange from year 2013 to 2018. The study reveals that good internal assurance can affect positively and can be supplement to external assurance service.

4.3.1.3 Intended users

From an intended user's perspective, researchers find that 11% of sustainability assurance statements are addressed to managers, 14% to boards, 5% directors, reporting entity/company and stakeholders (Bepari & Mollik, 2016). Given that the sustainability reports are designed to provide information to the reporter's broader stakeholders, the lack of addressing sustainability assurance to stakeholders might tarnish the assurance statements' credibility as a tool for promoting accountability. For example, sustainability assurance statements published by companies in UK and Europe usually addressed to management. According to O'Dwyer and Owen (2005) noted that assurance providers in UK and Europe address the assurance statements to management rather to stakeholders. In such instances these engagements can be best described as internal assurance provided by a third-party (Bepari & Mollik, 2016; O'Dwyer and Owen, 2005). Moreover, Deegan et al. (2006b), who analysis 48 assurance statements in UK and 52 in Europe find that in UK 79% of the assurance statements of the sample did not identify the addressee, while in Europe 85% of the sample did not address the assurance statement to any party. Interestingly, only one assurance statement addressed to stakeholders.

Scholars argue that to promote accountability and avoid capture there should be greater stakeholder involvement. However, researchers complain that stakeholder involvement is limited (Belal, 2002; Cho et al., 2014; Edgley et al., 2010; Romero et al., 2014). Further, when researchers compared assurance statements prepared by accountants versus those prepared by non-accountants, they note that stakeholder engagement is greater when non-accountants are involved. For example, Manetti and Toccafondi (2012), who analysed 161 assurance statements published by companies in three different languages (English, Spanish, and German) based on six regions, note that non-accounting assurance providers promote greater stakeholder involvement in both reporting and the assurance process.

Studies also find that assurance service can provide legitimacy to reporters and reduce stakeholder's concerns. For instance, Gillet, (2012) concludes that companies in France seeks to provide sustainability assurance to their reports because can provide legitimacy towards stakeholders. Similarly, Datt et al., (2018) who examined the impetus for companies in providing assurance over carbon emissions in sustainability reports by analysing assurance statements from 44 countries globally. Their study concludes that companies use assurance to get legitimacy and to mitigate the stakeholders' concerns. However, Ackers (2009) notes that assurance might not be perceived as useful among ordinary

stakeholders who do not understand the importance of external assurance, and cannot distinguish between levels of assurance.

Research reveals that external assurance enhances the perceived credibility of sustainability reports amongst stakeholders (Brown-Liburd & Zamora 2015; Cheng et al., 2015; Gal & Akisik, 2020; Pflugrath et al., 2011; Sellami et al., 2019). For example, Park and Brorson (2005), who used content analysis of sustainability reports and in-depth interviews from participants based in Swedish companies note that the reason behind adopting third-party assurance was to the need to enhance perceived disclosure credibility amongst users. Hodge et al. (2009) conducted a survey in two Australian university among student enrolled in MBA programme, and found that assurance statements had a significant favourable influence on users' perceptions of sustainability reports' credibility. Further, Du and Wu (2019) found that in Taiwan sustainability reports were viewed as credible until they were externally assured.

Studies have noted stakeholder pressures as a key factor driving demand for external assurance. For example, Gillet-Monjarret (2015) found that media pressure is one of the factors pushing organisations to secure assurance. Further, Nishitani et al. (2021) found that Japan companies procuring third-party assurance statements were of a higher value. Similarly, researchers note that external assurance can reduce the cost of capital (Martínez-Ferrero & García-Sánchez, 2017b; García-Sánchez et al., 2021). Similar, external assurance positively impacted investment decisions in the USA (Dilla et al., 2019). Further, analysts based in the USA viewed believed that credibility will be higher when reports are assured by accountants. Similarly, Quick and Inwinkl (2020) find that assurance has a strong impact on the banks' decisions. Also, Al-Shaer and Zaman (2019) conclude that external assurance procured by companies with sustainability committees has a strong positive impact on CEO compensation contracts.

At a country level, researchers have explored how providing assurance as well as the type of assurance providers have an impact in reports or organisations from different perspectives (Dilla et al., 2019; Fernandez-Feijoo et al., 2016; Hodge et al., 2009; Pflugrath et al., 2011; Reverte, 2021; Shen et al., 2017). For example, Shen et al. (2017) found that the type of assurance providers (accountants or nonaccountants) has no effect on the investment decision of non-professional investors in China. Similarly, in Germany (Reimsbach et al., 2018; Steinmeier & Stich, 2019), Spain (Reverte, 2021), and France (Rivière-Giordano et al., 2018), researchers note that investors viewed sustainability assurance positively, however the type of assurance providers has no impact on their decision. However, in the USA context, Casey and Grenier (2015) conclude that getting assurance from accountants can reduce the capital cost for reporters as well as reducing analyst prediction dispersion. Herda et al. (2014) find that companies located in countries where stakeholder protection is weak are more likely to assure their sustainability reports. Conversely, low stakeholder demand for external assurance has been identified as an impediment to market growth in Japan (Haider & Nishitani, 2020). In Malaysia managerial

behaviour (namely a fear of damaging the companies' reputation and facing public scrutiny) were the main reasons preventing reporters from securing third-party assurance (Darus et al., 2014), and indicate the presence of managerial capture (i.e. unwillingness to submit to external scrutiny).

Researchers have also investigated how industry level impact companies to assure their sustainability reports (Branco et al., 2014; Cho et al., 2014; Fernandez-Feijoo et al., 2018; Green & Zhou, 2013; Mock et al., 2013; Sethi et al., 2017; Simnett et al., 2009; Zorio et al. 2013). These studies found that organisations working in industries with higher social and environmental implications are more likely to use assurance and providing sustainability assurance has a positive sight on the eyes of users. Other drivers include strong regulatory environmental and national culture (Martínez-Ferrero & García-Sánchez, 2017a). Similarly, Zhou et al. (2016) note that reporters based in stakeholder-oriented countries are more prone to securing external assurance. However, Boiral et al. (2019) stated that assurance practice does not always address the need of the users of the report.

Table 7:

The impact of securing sustainability assurance

| Studies | Country | Description | Positive correlation | Negative correlation | No / weak correlation |
|--|------------------------|--|----------------------|----------------------|-----------------------|
| Hodge et al (2009) | Australia | Improves perceived reliability of sustainability reports Improves report users' confidence | ✓ ✓ | | |
| Cho et al. (2014) | USA | Increases market value of reporter | | | ✓ |
| Cuadrado-Ballesteros et al. (2017) | Multi countries | Reduces information asymmetry among stakeholders | ✓ | | |
| Fuhrmann et al. (2017) | Europe | Reduces information asymmetry | ✓ | | |
| Martínez-Ferrero and García-Sánchez (2017) | Multi countries | Decreases cost of capital | ✓ | | |
| Shenet al. (2017) | China | Improves Investor decision making | ✓ | | |
| Al-Shaer and Zaman (2019) | | CEO compensation contracts (higher reward) | ✓ | | |
| Dilla et al (2019) | USA | Improves investment decision making | ✓ | | |
| Du and Wu (2019) | Taiwan | Enhances sustainability reports credibility | ✓ | | |
| Steinmeier and Stich (2019) | multi countries | Improves managerial investment decision making Reduces information asymmetry (between managers and investors) | ✓ ✓ | | |
| Harymawan et al. (2020) | Malaysia and Indonesia | Increases company Value | ✓ | | |
| Quick and Inwinkl (2020) | Germany | Increases users confidence sustainability reports Banks lending decisions | ✓ ✓ | | |
| Reverte, (2021) | Spain | Improves investment decisions | ✓ | | |

Table 8:

The impact of securing the assurance of integrated reports

| Studies | Country | Description | Positive correlation | Negative correlation | No correlation |
|-------------------------|-----------------|--|----------------------|----------------------|----------------|
| Caglio et al. (2020) | South Africa | Users' confidence in the credibility of integrated reports | ✓ | | |
| Reimsbach et al. (2018) | Multi countries | Professional investors' evaluation of a reporters sustainability performance | | | ✓ weak |
| Akisik and Gal (2019) | Multi countries | Financial performance: Stock price growth Return on equity Return on assets | ✓ ✓ ✓ | | |

In terms of the assurance of integrated reports, from an intended users' perspective, there is a lack of consensus amongst researchers on the impact of external assurance on stakeholders. For example, Reimsbach et al. (2018) found that external assurance of integrated reports has a low impact on the decisions of professional investors. Similarly, Zhou et al. (2019) investigated if combined assurance (i.e. external assurance, internal assurance, risk management and internal controls) can enhance the credibility of integrated reports in South Africa. The study revealed state that combined assurance reduces analysts forecast errors. Caglio et al. (2020) found that assurance provided accountants gives greater confidence to financial analysts.

According to Corrado et al. (2019) users find assurance services useful in promoting confidence. However, some users, particularly investors, seek additional information from other sources as they believe they have less confidence in the information, despite the presence of external assurance. Maroun (2019b) notes that in South Africa, companies rely on third-party assurance to meet stakeholders' needs and satisfy social expectations. Similarly, Briem and Wald (2018) find that stakeholders' pressurise German companies to procure external assurance.

However, in some instances stakeholders fail to fully benefit from assurance services. For instance, Borgato and Marchini (2021) note that there is a lack of understanding of integrated reporting amongst Italian stakeholders, which may reduce the benefits of integrated reporting as well as negatively impacting the credibility enhancement potential of external assurance. Furthermore, Phang and Hoang (2021) find that combined assurance is more effective than external assurance alone in influencing investors' willingness to invest, particularly in companies suffering from poor financial performance.

4.3.2 The subject matter of assurance

The subject matter of assurance depends on the scope of the engagement, including critically the assurance standard being followed by the assurance practitioner (Maroun, 2017). "Assurance engagements performed in accordance with ISAs involve assurance over information" (ISAs, 2009, p.73), i.e., non-financial information.

The sustainability assurance literature reveals three key issues relating to the subject matter of assurance. First, studies show that accountants, following the requirements of ISAE3000 prefer to provide assurance over data and information, while non-accountants are more willing to provide assurance over the entire report and the reporters underlying sustainability performance. For example, Perego (2009) found that accountants preferred to verify data, while non-accountants tend to be more detailed and comprehensive when it comes to the recommendations and the opinion. Similarly Ball et al., (2000) found that accountants focus mostly on data verification, while non-accountants assurance

providers are more likely to attest to the accuracy of the report's substance. Moreover, Edgley et al. (2015) found that accountants providers use data verification to reach their final opinion, whereas non-accountants provide assurance of more than data information.

Second, studies comment on the assurance providers work on materiality, an important concept that determines the issues which should be reported on. Assurance providers need to consider materiality in the chosen subject matter (Marx & van Dyk, 2011) and when setting the scope of assurance engagements (Farooq & De Villiers, 2019). However, the significance of materiality differs across assurance providers (Edgley et al., 2015; Canning et al., 2019). O'Dwyer and Owen (2005) note that materiality is an important issue that assists assurance providers in reaching their conclusion, however, assurance providers do not clearly identify these principles in the assurance statements. Moreover, Edgley et al. (2015) conclude that non-accountants give more attention to materiality in their assurance statements, by notifying reporters on material areas that need improvement, while accountants concentrated less on this issue. Furthermore, Hummel et al. (2019) who examined the quality of sustainability assurance statement published by 122 European firms during the year 2013, found that only 37% of the assurance statements covered materiality. Similarly, Farooq and De Villiers (2020) note that despite its importance materiality is often excluded from the scope of engagements.

Researcher's note that accounting assurance practitioners preferred to provide assurance over the reliability of the contents of non-financial reports, i.e., examining evidence to support data and information contained within non-financial reports (Farooq & De Villiers, 2020; Deegan et al., 2006a, 2006b). Such narrow scope engagements allow assurance practitioners to enter the market and earn revenues while limiting the reputational and legal risks associated with providing assurance over the overall balance of a sustainability report, i.e., assurance over the inclusion of material good and bad news within published reports, indicating the presence of professional capture (Farooq & de Villiers, 2020; O'Dwyer et al., 2011). However, assurance of the level of balance (i.e. whether sustainability reports contain both good and bad news) is rare and usually undertaken by assurance providers when they adopted broad-scoped (Farooq & de Villiers, 2020; Manetti & Toccafondi, 2012). This is because in financial reporting transactions which meet the recognition criteria stated by generally accepted accounting principles are recorded in the books of accounts and presented in the financial statements. In comparison, the process is considerably more subjective when it comes to sustainability reporting. When preparing a sustainability report, managers need to undertake a materiality assessment (including stakeholder engagement) to identify issues which are material and should be included for reporting. Therefore, it is important for practitioners to provide assurance relating to the overall balance of the sustainability report.

Studies have also examined the use of sustainability assurance standards used by accountants and non-accountants and the link between these standards and the quality of the assurance service (Belal, 2002;

Cooper and Owen, 2007; Deegan et al., 2006a, 2006b; Dando and Swift, 2003; Gray, 2000; Manetti and Becatti, 2009; O'Dwyer and Owen, 2005, 2007; Rossi and Tarquinio, 2017; Segui-Mas et al., 2015; Zorio et al., 2013). The two most common assurance standards used by assurance providers are AA1000AS and ISAE3000 (Ackers & Eccles, 2015; Venter & van Eck 2021). Researchers note that accountants are limited to using only ISAE3000 (Zorio et al., 2013; Edgley et al., 2015), whereas non-accountants enjoy greater flexibility and, in some cases, use multiple standards in combination, but will lean more towards AA1000AS (; O'Dwyer and Owen, 2005, 2007). When comparing these standards, researchers note that AA1000AS is a specialist standard, while ISAE3000 is a generic standard, and AA1000AS places greater emphasis on stakeholder engagement (Channuntapipat et al. 2019; Farooq & De Villiers, 2019, 2020).

Finally, studies examining the quality of assured sustainability reports finds that assured reports are of a higher quality (Braam et al., 2016; Green & Zhou, 2013). For example, Perego (2009) concludes that assured sustainability reports are of a higher quality than other reports which not assured, also assurance service is the tool of the companies to enhance the quality of sustainability reports (Park & Brorson, 2005).

In terms of the assurance of integrated reports, the literature reveals that securing external assurance enhances the quality of integrated reports. For example, Maroun (2019a) notes that external assurance can improve the quality of integrated reports provided the engagement scope is broad. However, not all assurance services contribute significantly to the quality enhancement, and this is likely due to engagements failing to go into enough depth about the subject matter accuracy, completeness, and reliability. Simnett and Huggins (2015) examine the challenges that arose in the development of the integrated reporting, and found that a broadening of the subject matter of assurance, necessitates a more complicated assurance skillset, which in turn may require the use of interdisciplinary teams assigned to the engagement. The added complexity may drive up the cost of assuring integrated reports and this may be disproportionately higher than the perceived advantages of external assurance.

4.3.3 A suitable criteria

“The criteria form the benchmarks used by assurance providers to evaluate or measure the subject matter ...” (IAASB, 2005, p.14).

There are different guidelines and standards issued by international organisations to assist them in reporting non-financial information (i.e., reporting standards) and the assurance of such information (i.e., assurance standards) (Dando & Swift, 2003; Wallage, 2000). The most popularly reporting standards are the GRI guidelines/standards (and by the same token of argument the IIRC Framework) as the criterion against which sustainability reports (and integrated reports) can be compared, i.e., assurance providers evaluate non-financial reports by comparing them against these standards.

The GRI's goal is to promote transparency and accountability and according to the GRI "the reporting organization should identify its stakeholders and explain in the report how it has responded to their reasonable expectations and interests" (2016, p. 8). Studies highlight how these standards play a pivotal role in the scope of assurance engagements supporting stakeholder accountability (Manetti and Toccafondi, 2012; Park and Brorson, 2005). However, Deegan et al. (2006a) note that most of assurance statements fail to adhere to a particular reporting criterion, and the assurance providers failed to clearly articulate how they used these standards in their assurance engagements. Similar results were noted by Deegan et al. (2006b) in UK and Europe, and Hickman and Cote (2019) in the USA context.

Sawani et al. (2010) note that the GRI is rarely used in the Malaysian firms and the argue it is complicated and time-consuming. Also, Hickman and Cote (2019) note that the lack of reporting standards limits the usefulness of external assurance provider managers with an opportunity to choose which information they want to disclose, thereby giving rise to managerial capture.

In terms integrated reporting assurance Borgato and Marchini (2021) stated that the lack of appropriate criteria is the main challenge which most of the interviewed emphasis. The study argue that this might lead to difficulties to assure the materiality, reliability, and completeness of the report. Further, assuring forward-looking information in the report is another issue facing assurance providers, and the study stated that integrated reports assurance standers need to improve and give an accurate definition to the integrated report framework. Research conducted by Simnett and Huggins (2015) finds that without an appropriate credibility-enhancing process, these reports risk becoming and being viewed as little more than marketing materials or greenwash which might lead to losing the main aim of providing such these reports. Goicoechea et al. (2019) who used an online survey to identify to what extent assurance of integrated reports is important in Spain highlighted that shortage of non-financial information standers, and non-financial information creation system failure to adopt a control reliance approach are the most challenges to assure integrated reports. According to Richard and Odendaal (2020) accounting assurance providers use ISAE 3000 while nonaccounting assurance providers use AA1000AS, however, assurance statements is in higher quality when assured by non-accounting providers. On the other hand, Maroun (2019b) who interviewed 25 assurance providers and prepares of integrated reports states that an assurance service is a legitimization tool, which necessitates no modifications to existing assurance standards.

In contrast, some studies call for establishing a new auditing standard for integrated reports assurance (Velte & Stawinoga, 2017; Moroun, 2018). Velte and Stawinoga (2017) recommended that providing an international auditing standard for integrated reports assurance is needed which can enhance the reliability. While Maroun (2018) because of the shortcomings of the assurance guidance, the study aimed to present a new assurance model, Moroun established a new assurance model called "interpretive assurance model", and this model rely on three pillars which are the value creation process,

the methods used, and finally the auditor evaluates the validity of the review process. The benefit to be gained from providing assurance can go beyond the general concept of the assurance. Kılıç et al. (2019) emphasised how assurance is important especially in countries that auditing, and reporting standards are missing or weak. The study stated that the assurance can compensate these limitations even in business environments which suffering from lack of ethical behaviours.

4.3.4 Obtaining sufficient appropriate evidence

“The practitioner plans and performs an assurance engagement with an attitude of professional skepticism to obtain sufficient appropriate evidence about whether the subject matter information is free of material misstatement” (IAASB, 2005, 15).

There are two issues to consider here. First, and as noted earlier, the use of assurance standards. Second, the assurance procedures that are undertaken by assurance providers. The AA1000 assurance standards according to Kolk and Perego, (2010) establishes concepts, definitions, and procedures to assure the sustainability assurance process's reliability. The AA1000 assurance standards issued in 2003 and concentrate on the principles of accountability and how assurance providers can use it “is intended to give stakeholders assurance on the way an organization manages sustainability performance, and how it communicates this in its sustainability reporting, without verifying the reliability of the reported information” (AccountAbility, 2008, p. 9). Adams and Evans (2004) stated that the AA1000 strives to urge organisations to behave more responsibly towards society, the environment, and future generations by enhancing accountability to their stakeholders. This standard provides two type of assurance engagements called type 1 and type 2. In the first type (type1) engagements, the assurance providers provide assurance over the application of AA1000AS principles. In Type two engagements assurance providers evaluate both the reporter’s application of AA100AS principles, as well as the quality of the information reported. On the other hand, the ISAE3000 issued in 2005 by the International Audit Assurance Standards Board and it is also included standards and processes for assurance engagements of non-financial information (Smith et al., 2011). This standard provides two types of assurance, limited and reasonable (Hasan et al., 2003). This standard gives assurance providers flexibility to provide different level of assurance to different section in the report. (Farooq & de Villiers, 2017). Both the AA1000, and the ISAE3000 standards according to Junior et al. (2014) aim to enhance the credibility of the sustainability reports. Gillet-Monjarret (2018) who examined 135 sustainability assurance reports in France finds that the majority of companies refer to ISAE3000 assurance standards rather than any other assurance standards. While Edgley et al., (2015) which interviewed 20 assurance providers in UK to investigate the value of social and environmental reporting and its assurance find that accounting assurance providers were obliged to apply ISAE3000 when they provide assurance, on the other hand non-accounting assurance providers follow the GRI guideline and the stakeholder-orientated AccountAbility.

The extant literature indicates that not all the assurance statements mention the audit procedures undertaken and those that do indicate considerable variation in the procedures undertaken by assurance practitioners. Some of these procedures include, “checking consistency with underlying systems/ledgers/data”, “inquiry/discussions/interviews with management/staff”, “inspection”, “checking”, “test basis”, “sampling”, “random checks”, “site visits”, “reviewing the reliability”, and assessing the “effectiveness of internal control systems” etc. According to Edgley et al., (2015) the procedures that assurance providers follow to obtain sufficient evidence is strongly associated with the assurance level offered. Park and Brorson (2005) find that assurance providers in Sweden follow certain methods in order to claim, “sufficient appropriate evidence”, for instance, looking to the accuracy of the sustainability reports, checks against reporting standards, random checks, and the evaluation of the system of collecting and analysing data. O'Dwyer and Owen (2005) noted that while assurance statements mentioned the scope of the assurance, there was a lack disclosure around the procedures undertaken to gain sufficient appropriate evidence. Similar results are reported by Deegan et al. (2006a, b) who found that assurance statements either failed to mention or gave very little details about the steps taken to collect evidence to support the final opinion (Deegan et al., 2006a; Deegan et al., 2006b). In the similar vein Gray (2000) notes auditors usually do not comments on the objective of the report, and the completeness of the report when providing assurance. Cooper and Owen (2007) note the lack of stakeholder engagement in the sustainability reporting and assurance process. In terms of developing countries, Janggu et al., (2013) investigate if sustainability assurance statements published by listed Malaysian companies meet the major requirements of ISAE 3000 by analysing eight assurance statements published in 2010 and found that companies in Malaysia do not apply the ISAE3000 properly.

Further, a limitation of scope, i.e., inability of the assurance provider to collect sufficient appropriate audit evidence around certain sections of the sustainability report, result in partial assurance over some contents and no assurance over others. For example, Farooq and de Villiers (2019) found that assurance providers undertake partial assurance over sections of non-financial reports as well as providing mixed levels of assurance (i.e., a combination of limited and reasonable assurance), due to underlying systems and processes being weak and unable to withstand the rigours of external assurance. Similar results were reported by Hickman and Cote (2019), where USA executives and assurance practitioners acknowledged that the conclude that the lack of underlying evidence resulted in partial assurance Further Junior et al. (2014) note that mixed assurance opinions, where assurance providers struggled to find sufficient appropriate evidence to support a reasonable level of assurance for all sections of a sustainability report. Farooq and De Villiers (2019) attribute the presence of partial and mixed assurance engagements to ISAE3000. They also note that such engagement scopes are less difficult to undertake if the assesor uses AA1000AS. Researchers have suggested that assurers do more work to assess the report and provide evidence to support their conclusion. For example, Adams and Evans (2004) suggest

that assurers assess ongoing issues and risks, as well as areas where there is possibility of misrepresentation or omitted information.

Some other studies linked between accountants and the use of ISAE3000 and non-accountants and the use of AA1000SA standards. For example, Ackers (2009) states that non-accounting assurance providers prefer to use AA1000AS standards in South Africa, while accounting assurance providers mostly use ISAE3000, however, the study finds that 33% of accounting providers reference AA1000AS as well. Dando and Swift (2003) investigate how third-party assurance can enhance the credibility gap of the sustainability reports and how AA1000s assurance standards helps assurance providers, the study consulted 150 assurance practitioners and thought leaders stated that AA1000S assurance standards can be the best practice as it has three main principles “completeness, materiality, and Responsiveness” which can work together to vigorous assurance statements. A recent literature explores global trends in sustainability report assurance processes and the use of assurance standards. Alsahali and Malagueño (2021) investigate the global trends in sustainability report assurance processes by analysing the sustainability assurance statements in GRI database for six years. The study noted that the use of AA1000AS and ISAE3000 has been increased during the six years. The study found that in 2012, out of 633 sustainability assurance statements 39% (247) assurance statements used AA1000AS assurance standards, while 46% (292) assurance statements used ISAE3000. Whereas, in 2017 out of 1255 assurance statements 32%, and 58% used AA1000AS and ISAE3000 assurance standards respectively.

In terms of integrate reporting assurance, Goicoechea et al. (2019) stated that auditors and users agreed that auditing the complete content of integrated reporting is critical. However, the study highlighted that “Financial performance”, “basis of preparation and presentation”, and “governance” are the most significant elements to be assured in the integrated reports. Corrado et al. (2019) undertook semi-structured interview with three groups (practitioners, users, and academics) to provide a comprehensive understanding of integrated reports assurance, the study stated that because the practitioners have to work closely with managers how are seeking to assure the integrated reports, this can restrict the independence of the assurance providers which might affect the reliability and objectivity of the assurance process.

4.3.5 A written assurance report

“The practitioner provides a written report containing a conclusion that conveys the assurance obtained about the subject matter information”. (IAASB, 2005, P.19).

Studies that examine the quality of published assurance statements reveal certain issues in practice. For example, Gillet, (2012) finds that the conclusion that assurers provide is limited in accuracy and fails to explain in detail whether the data and the information assured is in fact accurate and complies to stated degree of assurance. Also, Deegan et al. (2006a) and Deegan et al. (2006b) reveal that assurance

providers used different words in the conclusion sections of their reports and these words have no clear meaning, for example, some use the terms “supported”, “true reflection”, and “valid”, while others use terms such as “supported by adequate”, “appropriate evidence”, “sound”, and “in our opinion”. Further, O'Dwyer and Owen (2005) who analysis 41 assurance statements of short-listed companies of Association of Chartered Certified Accountants (ACCA) UK and European Sustainability Reporting Awards scheme for the year 2002 state that there is an absence of the words “true and fair” in assurance statements. Similarly, in developing countries Janggu et al., (2013) who analysed eight assurance statements published by 8 public-listed companies in Malaysia for the year 2010 find that none of these assurance statements mentioned the term “true and fair” in their conclusion.

Adams and Evans (2004) investigated the lack of credibility and completeness of sustainability assurance statements, and found that in order to achieve higher accountability, assurance providers should acknowledge deliberate underreporting or incomplete reporting in their conclusion, as well as avoiding issuing false conclusions to order to save mangers. More, O'Dwyer and Owen (2005) highlight that the assurance statement from non-accountants contains greater depth and breadth of the discussion.

Perego (2009) who examined the quality of sustainability assurance statements published in 2005 to 139 international companies states that sustainability assurance statements by accountants have higher quality than others assured by non-accounting providers. Moreover, Martínez-Ferrero et al. (2018) who examine the quality of the sustainability assurance report by analysis sustainability assurance reports of 242 companies from 17 countries find that the quality of the assurance service is higher when the assurers are industry experts. This finding is consistent with a recent study by Ruiz-Barbadillo and Martínez-Ferrero (2020), this study analysed assurance statements in 22 countries to investigate if having the same practitioner provide audit and sustainability assurance services has an impact on the quality of the report conclude, the study observes that the quality of the assurance will be much higher when these industry experts are from the accounting firms, as well as having one audit firm for both financial and non-financial report has a positive impact on the quality of the report and it can be useful in terms of the fees and time-consuming (Jones & Solomon, 2010). However, this might impact negatively on the assurance providers' independence (Boiral et al., 2019).

Moreover, studies which examine published sustainability assurance statements find that practitioners are reluctant to offer a high level/reasonable of assurance and prefer to issue a limited/low level of assurance instead (Alsahali & Malagueño, 2021; Gillet-Monjarret, 2018; Martínez-Ferrero & García-Sánchez, 2018; Mock et al., 2007). For example, Gillet-Monjarret (2018) Who examined 135 of sustainability assurance statements published by listed companies in France from 2001 to 2015 concludes that the majority of the sample was providing limited assurance level instead of reasonable level. Also, Martínez-Ferrero and García-Sánchez (2018) who analysed 305 assurance statements from 16 countries to investigates the link between various assurance provider characteristics and the level of

sustainability assurance found that limited/low level of assurance in the most common level of assurance provided by assurers. A recent study by Alsahali and Malagueño (2021) found that limited assurance opinion is the most level of assurance that all type of assurance providers provides. In addition, the study found that limited assurance usually linked with accounting providers and 78% of assurance statements assured by accountants contains limited assurance and 8% is reasonable assurance.

Similar results were observed by Channuntapipat (2020), and (Channuntapipat et al., 2019) in UK, in USA (Sheldon and Jenkins, 2020), and in Spain (Cuadrado-Ballesteros et al., 2017). They found that assurance providers willing to provide limited assurance in sustainability reports rather than reasonable assurance. For example, Sheldon and Jenkins (2020) who investigated public's views of environmental report credibility in USA and the impact of level of assurance concluded that limited assurance is provided more than reasonable assurance. However, the study observed that limited assurance has a positive impact and be more believable than no assurance. On the other hand, some studies questioned if users could distinguish between these two levels of assurance (limited and reasonable). Moreover, Cuadrado-Ballesteros et al. (2017) explored how sustainability reporting might help to reduce information asymmetry stated that assurance is linked to mitigate the information asymmetry specifically when the level of assurance is higher.

Finally, Maso et al. (2020) investigated if the same audit firm's dual offering of corporate social responsibility assurance services and financial audit affects auditors' assessments of going-concern risk. The study stated that accountants that provide both financial auditing and sustainability assurance to the same organisation is providing frequent going-concern opinions.

In terms of the assurance of integrated reports Simnett and Huggins (2015) stated that the type of assurance that assurers provide might be different depending on the way that integrated reports are constructed. Moreover, according to Caglio et al. (2020) assuring integrated reports can be the cure of the difficult and complex reports that cannot be read. The study also finds that if the companies prepare long reports, however, if this report is assured, this could alleviate the negative impact of stock liquidity. In addition, Goicoechea et al. (2019) find that reasonable assurance is much preferred for both auditors and users of integrated reports. However, Maroun (2019a) who analysed integrated reports in the top 50 companies listed in South Africa reveals that the type of assurance that assurers provide (reasonable and limited) has no impact on the quality of the integrated reports, and this could be due to the non-expert stakeholders which might not know the difference between these two conclusions.

4.4. Future avenues for research

This section identifies future avenues for research. The section addresses research question three: “what are the future research opportunities on non-financial information assurance available to academics?”

The review identifies several opportunities for future research. First, the literature indicates that there are two main types of assurance providers operating in the market, accounting and non-accounting assurance providers. There remains a dearth of studies examining the competition between these two types of assurance providers, and there is a need for more research examining the nature of this competition, and how accountants enter and compete against other professions in new markets.

Second, the literature review reveals that non-accountants are losing their market to accountants (led by the Big Four). While researchers have speculated as to reasons behind this, there remains a need to undertake a detailed examination of the causes for this decline in market share. Such studies will need to be country specific as the factors driving changes in market share may vary across jurisdictions.

Third, while several studies have attempted to understand the factors affecting reporter's decision of securing external assurance, the results of these studies are inconsistent. For example, size, leverage, profitability, industry. Thus, further efforts are required to understand the factors influencing reporters' decisions to procure external assurance.

Fourth, the literature review highlights how the presence of managerial and professional capture impacts the scope of assurance engagements resulting in narrow scope engagements (i.e., limited level of assurance) which offer limited benefits to stakeholders. There is a need for greater research directed at understanding the factors that stimulate and inhibit managerial and professional capture. Related to this there is a need to explore stakeholders' understanding of the differences in engagement scopes and if they are able to distinguish between narrow and broad scope engagements.

Fifth, the review reveals that while several studies examining the content of published assurance statements have been undertaken, these studies suffer from certain limitations. First, several such studies are now dated having compared assurance engagements against the requirements of older standards' (some even mistakenly compare assurance engagements against the requirements of non-financial reporting standards). Second, the factors driving non-financial information assurance quality will require a second look when jurisdictions introduce tougher regulations around assurance, i.e. when assurance is no longer voluntary.

Sixth, the literature review reveals that there are other themes need to explore further as they are the least examined themes. These themes investigate the assurance practice from different perspectives. These themes are, other potential roles that sustainability reporting assurance plays, factors influencing organisations choice between assurance provider type. More studies can be done here which will help to give a comprehensive understanding of these themes.

Seventh, there is a need for more studies examining the assurance of integrated reports. Issues to consider include the reasons behind the low assurance rates, the challenges practitioners face in assuring

integrated reports (e.g., forward looking information). Also, themes that require more academic attention include the factors supporting reporters ability adopt third-party assurance, the relationship between culture value and providing assurance to integrated reporting, the assurance of integrated reports and its effect on the market value, stock liquidity and analyst prediction, and explore integrated reporting assurance from the perspective of assurance providers.

Conclusion

International Auditing Standards has identified the five elements of an assurance engagements; however, the literature review highlighted some issues related to implementing these five elements. Enhancing accountability and managerial and professional capture are the main issues identified in the assurance practice in both sustainability and integrated reports.

Chapter 5: Discussion and conclusion

5.1 Introduction

This chapter presents a discussion and conclusion to the research. The chapter is divided into four sections. Following the introduction, section 5.2 presents a discussion of the findings arising from this study. Section 5.3 concludes the study and discusses the contributions arising from the study as well as the limitations of the research.

5.2 Discussion

Non-financial information assurance is gradually establishing itself as best practice across the world. The primary objective of this new form of assurance is to enhance the credibility of non-financial disclosures, including sustainability reports and integrated reports (Park & Brorson, 2005). This study reviews the literature in the field and address three inter-related research objectives; (1) assess the current state of academic research in the field; (2) to understand the nature of non-financial assurance engagements by structuring the literature around the definition of an assurance engagement, as proposed by the IAASB; and (3) to identify gaps in the literature and provide directions for future research. The study adopts Massaro, Dumay and Guthrie's (2016) 10 step approach to undertaking a structured literature review. The study reviews a total of 170 articles published from 1999 to 2021.

In terms of research objective one, the results indicate that 170 articles have been published in this field, from 300 researchers based in 27 of countries. In terms of sustainability assurance, Australia has published the most articles, while USA has the highest number of researchers in the field. These articles have been published in a range of journals including 34 accounting and 18 non-accounting journals. In terms of the assurance of integrated reports, the country with the most published articles is South Africa (6 articles), while Australia Italy, and USA have the highest number of researchers (5 researchers per country).

In terms of research objective two, an assurance engagement comprises of five key elements: (1) a tripartite arrangement, (2) subject matter of assurance, (3) a suitable criterion, (4) sufficient appropriate evidence, and (5) a written assurance report. The study utilises a combined theoretical lens of accountability and capture to analyse this second research question. The review reveals that there are two main assurance providers; accounting and non-accounting assurance providers. The market share of accountants has increased in recent years due, driven by recent acquisitions of non-accounting providers by the Big Four. Researchers have commented on the relative strengths and weaknesses of accounting and non-accounting assurance providers. The responsible party comprises of directors, however, directors often control the scope of engagements indicating the presence of managerial capture which hinders the ability of non-financial assurance in promoting accountability. Theoretical the intended users should be stakeholders, however assurance statements are mostly addressed to management. Further stakeholder engagement in the assurance process remains low. This indicates the

presence of capture and non-financial information assurance becomes more like internal audits undertaken by third-party. Researchers note that external assurance provides legitimacy to reporters, addresses stakeholder concerns and is positively valued by investors and lenders. In terms of the assurance of integrated reports, investors remain sceptical and avoid placing too much reliance on external assurance. Instead, investors seek information from other sources to support their investment decisions. Finally, users ability to fully benefit from non-financial information assurance is limited due to the lack of understanding around the nature (scope and objectives) of this service, and this lack of understanding is often greater with the assurance of integrated reports.

In terms of the subject matter of assurance, studies note that this is dependent on the scope of the engagement. Researchers note that accountant's, in line with the requirements of ISAE3000, prefer to provide assurance over the contents of sustainability and integrated reports, whereas non-accountant are more willing to provide assurance over the entire report and the reporters underlying non-financial performance. In terms of materiality, researchers note that despite the importance of this concept it is often excluded from the scope of assurance, although non-accountants are more likely to include materiality in the scope of engagements than accountants.

In terms of a suitable criteria the most common guideline used is GRI which provide a benchmark for comparing integrated reports and sustainability reports.

In terms of obtaining sufficient appropriate evidence researchers discuss the use of assurance standards and the assurance procedures that practitioners undertake. The most two common standards are ISEA3000 which mostly used by accountant providers, and AA1000AS which used more by nonaccountant providers. Each of these two assurance standards have two levels of assurance (limited and reasonable) and (type1 and type2) respectively, and both standards are used on the assurance of sustainability and integrated reports. The assurance procedures in order to obtain evidence is missing in the majority of the assurance statements. Studies indicates that procedures strongly linked to the conclusion that the assurer will reach, however, the assurance providers do not mention what are the procedures they took in most of the cases. This indicates professional capture, assurance providers want to assure areas where are less risky and avoid the areas where more work needs and are riskier.

Finally, in terms of the written report researchers note that the majority of assurance engagements provide limited/low level of assurance. Further, there assurance reports often fail to clearly state whether the information in the report is accurate and present the business' picture or not, whether the report in completed and include all the information which should be disclose or not.

In terms of the research objective three, sustainability assurance still growing globally, and many countries started mandate this practice among organisations, and from the literature review there are many opportunities for future research of this practice. The study identifies seven areas where the

academics have more opportunities for future research which will further our understating of this practice. On the other hand, the assurance of integrated reports is relatively new, and few countries mandate this practice. However, this practice is fruitful for academics for future research avenue. The study has been identified some topics related to this practice for more research as this practice expected to grow and organisation will pay more attention to it.

5.3 Conclusion

The research in endeavoured to provide a comprehensive understanding of the assurance of sustainability and integrated reports by providing the current state of the academic research, reviewing the literature of the assurance of non-financial reports, and providing the future research opportunities for academics. To achieve the three research objectives, a systemic literature review has been used of 170 articles related to the assurance of non-financial information from 1999 to 2021, drawing on promoting accountability and the concept capture.

Findings related to the research objective (one) showed that sustainability assurance is increased in the recent years in many countries and still low in some other countries. Academic efforts have also increased compared to the number of articles published in the past and in the recent years, and the assurance of integrated reports is still limited in both publishing articles related to this topic and the number of countries applying this practice. Regards to research objective (two), the literature shows that accountant and non-accountant are the main two assurance providers, and accountants are ruling the market with some exception in some countries. The literature showed that managerial and professional capture are existing in the assurance process, and the stakeholders' accountability is not as it supposed to be. The assurance practice still needs some intense efforts to get rid of impurities and to do its full job. In terms of research objective (three) there are still many future research avenues for academics to contribute to the existing literature and increase knowledge of the assurance of non-financial information.

5.4 Limitations

The study has some limitation as well. Firstly, the study focused on articles published in English language only. This might cause of missing important articles which published in other languages such as Chinese, Spanish, and French languages. It would be interesting if another study includes all articles published in these languages which will provide more comprehensive understanding about the assurance practice in other countries.

5.5 Contribution

There are several academic and practical contribution of this study. First, this study will be the latest literature review of sustainability assurance and researchers can benefit from this study in understanding the field, and pinpoint areas for further investigation. Academics can also use this

research in courses content for teaching. From a practical standpoint, stock exchanges can make use of the knowledge when creating corporate governance regulations that should compel listed companies to get assurance about their non-financial assurance engagements, including the scope and objectives of such engagements. Finally, the insights provided, which are organised around the notion of an assurance engagement, might also benefit assurance practitioners

Reference List

- Al-Shaer, H., & Zaman, M. (2019). CEO compensation and sustainability reporting assurance: Evidence from the UK. *Journal of Business Ethics*, 158(1), 233-252.
- Ackers, B. (2009). Corporate social responsibility assurance: how do South African publicly listed companies compare?. *Meditari: Research Journal of the School of Accounting Sciences*, 17(2), 1-17.
- Ackers, B. (2017a). Independent corporate social responsibility assurance: a response to soft laws, or influenced by company size and industry sector?. *International Journal of Disclosure and Governance*, 14(4), 278-298.
- Ackers, B., & Eccles, N. S. (2015). Mandatory corporate social responsibility assurance practices: The case of King III in South Africa. *Accounting, Auditing & Accountability Journal*, 28(4), 515-550.
- Adams, C. A., & Evans, R. (2004). Accountability, completeness, credibility and the audit expectations gap. *Journal of corporate citizenship*, (14), 97-115.
- Akisik, O., & Gal, G. (2019). Integrated reports, external assurance and financial performance: An empirical analysis on North American firms. *Sustainability Accounting, Management and Policy Journal*, 11(2), 317-350.
- Alsahali, K. F., & Malagueño, R. (2021). An empirical study of sustainability reporting assurance: current trends and new insights. *Journal of Accounting & Organizational Change*. (ahead-of-print).
- Baboukardos, D., Mangena, M., & Ishola, A. (2021). Integrated thinking and sustainability reporting assurance: International evidence. *Business Strategy and the Environment*, 30(4), 1580-1597.
- 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 1. *Business strategy and the environment*, 9(1), 1-23.
- Ballou, B., Chen, P. C., Grenier, J. H., & Heitger, D. L. (2018). Corporate social responsibility assurance and reporting quality: Evidence from restatements. *Journal of Accounting and Public Policy*, 37(2), 167-188.
- Bebbington, J., Brown, J., & Frame, B. (2007). Accounting technologies and sustainability assessment models. *Ecological economics*, 61(2-3), 224-236.
- Beets, S. D., & Souther, C. C. (1999). Corporate environmental reports: The need for standards and an environmental assurance service. *Accounting Horizons*, 13(2), 129-145.
- Belal, A. R. (2002). Stakeholder accountability or stakeholder management: a review of UK firms' social and ethical accounting, auditing and reporting (SEAAR) practices. *Corporate Social Responsibility and Environmental Management*, 9(1), 8-25.
- Bepari, M. K., & Mollik, A. T. (2016). Stakeholders' interest in sustainability assurance process: An examination of assurance statements reported by Australian companies. *Managerial Auditing Journal*, Vol. 31 No. 6/7, pp. 655-687.
- Blewitt, J. (2012). *Understanding sustainable development*. Routledge.
- Bollas-Araya, H. M., Polo-Garrido, F., & Seguí-Mas, E. (2019). Determinants of CSR reporting and assurance: an analysis of top cooperative and mutual organisations. *Australian Accounting Review*, 29(4), 692-707.
- Braam, G. J., de Weerd, L. U., Hauck, M., & Huijbregts, M. A. (2016). Determinants of corporate environmental reporting: The importance of environmental performance and assurance. *Journal of cleaner production*, 129, 724-734.

- Branco, M. C., Delgado, C., Gomes, S. F., & Eugénio, T. C. P. (2014). Factors influencing the assurance of sustainability reports in the context of the economic crisis in Portugal. *Managerial Auditing Journal*, 29(3) 237-252.
- Burke, J. J., & Clark, C. E. (2016). The business case for integrated reporting: Insights from leading practitioners, regulators, and academics. *Business Horizons*, 59(3), 273-283.
- Borgato, B., & Marchini, P. L. (2021). Auditors' perceptions of integrated reporting assurance: insights from Italy. *Meditari Accountancy Research*, 29(7) 31-53.
- Brown, H. S., de Jong, M., & Levy, D. L. (2009). Building institutions based on information disclosure: lessons from GRI's sustainability reporting. *Journal of cleaner production*, 17(6), 571-580.
- Brown-Liburd, H., & Zamora, V. L. (2015). The role of corporate social responsibility (CSR) assurance in investors' judgments when managerial pay is explicitly tied to CSR performance. *Auditing: A Journal of Practice & Theory*, 34(1), 75-96.
- Boiral, O., & Heras-Saizarbitoria, I. (2020). Sustainability reporting assurance: Creating stakeholder accountability through hyperreality?. *Journal of Cleaner Production*, 243, 118596.
- Boiral, O., Heras-Saizarbitoria, I., & Brotherton, M. C. (2019). Professionalizing the assurance of sustainability reports: the auditors' perspective. *Accounting, Auditing & Accountability Journal*, 33(2) 309-334
- Boiral, O., Heras-Saizarbitoria, I., Brotherton, M. C., & Bernard, J. (2019). Ethical issues in the assurance of sustainability reports: Perspectives from assurance providers. *Journal of Business Ethics*, 159(4), 1111-1125.
- Boiral, O., & Gendron, Y. (2011). Sustainable development and certification practices: Lessons learned and prospects. *Business Strategy and the Environment*, 20(5), 331-347.
- Briem, C. R., & Wald, A. (2018). Implementing third-party assurance in integrated reporting: Companies' motivation and auditors' role. *Accounting, Auditing & Accountability Journal*, 31(5)1461-1485.
- Brundtland, G. H. (1987). Our common future (UN World Commission on Environment and Development report). Retrieved from UN Documents: <http://www.un-documents.net/our-common-future.pdf>
- Caglio, A., Melloni, G., & Perego, P. (2020). Informational content and assurance of textual disclosures: Evidence on integrated reporting. *European Accounting Review*, 29(1), 55-83.
- Canning, M., O'Dwyer, B., & Georgakopoulos, G. (2019). Processes of auditability in sustainability assurance—the case of materiality construction. *Accounting and Business Research*, 49(1), 1-27.
- Channuntapipat, C. (2021). Can sustainability report assurance be a collaborative process and practice beyond the ritual of verification?. *Business Strategy and the Environment*, 30(2), 775-786.
- Channuntapipat, C., Samsonova-Taddei, A., & Turley, S. (2019). Exploring diversity in sustainability assurance practice: evidence from assurance providers in the UK. *Accounting, Auditing & Accountability Journal*, 32(2) 556-580.
- 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.
- Chen, Y. L., & Cheng, H. Y. (2020). Public family businesses and corporate social responsibility assurance: The role of mimetic pressures. *Journal of Accounting and Public Policy*, 39(3), 106734.

- 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.
- Cho, C. H., Michelon, G., Patten, D. M., & Roberts, R. W. (2014). CSR report assurance in the USA: an empirical investigation of determinants and effects. *Sustainability Accounting, Management and Policy Journal*, 5(2) 130-148.
- Clarkson, P., Li, Y., Richardson, G., & Tsang, A. (2019). Causes and consequences of voluntary assurance of CSR reports: International evidence involving Dow Jones Sustainability Index Inclusion and Firm Valuation. *Accounting, Auditing & Accountability Journal*, 32(8) 2451-2474.
- Corrado, M., Demartini, P., & Dumay, J. (2019). Assurance on integrated reporting: A critical perspective. In *Integrated reporting* (pp. 199-217). Springer, Cham.
- Cooper, S. M., & Owen, D. L. (2007). Corporate social reporting and stakeholder accountability: The missing link. *Accounting, Organizations and Society*, 32(7-8), 649-667.
- Conley, J. M., & Williams, C. A. (2005). Engage, embed, and embellish: Theory versus practice in the corporate social responsibility movement. *J. Corp. L.*, 31, 1.
- Coram, P. J., Monroe, G. S., & Woodliff, D. R. (2009). The value of assurance on voluntary nonfinancial disclosure: An experimental evaluation. *Auditing: A Journal of Practice & Theory*, 28(1), 137-151.
- 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.
- Cuozzo, B., Dumay, J., Palmaccio, M., & Lombardi, R. (2017). Intellectual capital disclosure: a structured literature review. *Journal of Intellectual Capital*, 18(1), 9-28.
- Dando, N., & Swift, T. (2003). Transparency and assurance minding the credibility gap. *Journal of Business Ethics*, 44(2), 195-200.
- Darnall, N., Seol, I., & Sarkis, J. (2009). Perceived stakeholder influences and organizations' use of environmental audits. *Accounting, Organizations and Society*, 34(2), 170-187.
- Datt, R. R., Luo, L., & Tang, Q. (2019). The impact of legitimacy threat on the choice of external carbon assurance: Evidence from the US. *Accounting Research Journal*, 32(2), 181-202.
- Datt, R., Luo, L., & Tang, Q. (2020). Corporate choice of providers of voluntary carbon assurance. *International Journal of Auditing*, 24(1), 145-162.
- Datt, R., Luo, L., Tang, Q., & Mallik, G. (2018). An international study of determinants of voluntary carbon assurance. *Journal of International Accounting Research*, 17(3), 1-20.
- De Moor, P. and De Beelde, I. (2005), "Environmental auditing and the role of the accountancy profession: a literature review", *Environmental Management*, 36 (2), 205-219.
- De Villiers, C., Hsiao, P. C. K., & Maroun, W. (2017). Developing a conceptual model of influences around integrated reporting, new insights and directions for future research. *Meditari Accountancy Research*, 25(4), 450-460.
- Deegan, C., Cooper, B. J., & Shelly, M. (2006a). An investigation of TBL report assurance statements: Australian evidence. *Australian Accounting Review*, 16(39), 2-18.
- Deegan, C., Cooper, B. J., & Shelly, M. (2006b). An investigation of TBL report assurance statements: UK and European evidence. *Managerial Auditing Journal*, 21(4), 329-371.
- Dilla, W., Janvrin, D., Perkins, J., & Raschke, R. (2019). Do environmental responsibility views influence investors' use of environmental performance and assurance information?. *Sustainability Accounting, Management and Policy Journal*, 10(3), 476-497.

- Du, K., & Wu, S. J. (2019). Does external assurance enhance the credibility of CSR reports? Evidence from CSR-related misconduct events in Taiwan. *Auditing: A Journal of Practice & Theory*, 38(4), 101-130.
- Dumay, J., Bernardi, C., Guthrie, J., & Demartini, P. (2016, September). Integrated reporting: A structured literature review. In *Accounting forum*, 40(3), 166-185. No longer published by Elsevier.
- Dutta, P. (2019). Determinants of voluntary sustainability assurance: the importance of corporate environmental performance. *Social Responsibility Journal*, 16(8), 1403-1414.
- Edgley, C., Jones, M. J., & Atkins, J. (2015). The adoption of the materiality concept in social and environmental reporting assurance: A field study approach. *The British Accounting Review*, 47(1), 1-18.
- Edgley, C. R., Jones, M. J., & Solomon, J. F. (2010). Stakeholder inclusivity in social and environmental report assurance. *Accounting, Auditing & Accountability Journal*, 23(4), 532-557.
- Ekasingh, E., Simnett, R., & Green, W. J. (2019). The effect of diversity and the mediating role of elaboration on multidisciplinary greenhouse gas assurance team effectiveness. *Behavioral Research in Accounting*, 31(1), 81-96.
- Ferguson, A., & Pündrich, G. (2015). Does industry specialist assurance of non-financial information matter to investors?. *Auditing: A Journal of Practice & Theory*, 34(2), 121-146.
- Farooq, M. B., & 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.
- 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.
- Farooq, M. B., & 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.
- Fernandez-Feijoo, B., Romero, S., & Ruiz, S. (2015). Multilevel approach to sustainability report assurance decisions. *Australian Accounting Review*, 25(4), 346-358.
- 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.
- Fernandez-Feijoo, B., Romero, S., & Blanco, S. R. (2018). Regional differences in industry specialization in the sustainability assurance market. *Management Decision*, 57(3), 669-687.
- Flannery, T. (2008). *The weather makers: The history and future impact of climate change*. Text Publishing.
- Flasher, R., Luchs, C. K., & Souza, J. L. (2018). Sustainability assurance provider participation in standard setting. *Research in Accounting Regulation*, 30(1), 20-25.
- 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.
- Gal, G., & Akisik, O. (2020). The impact of internal control, external assurance, and integrated reports on market value. *Corporate Social Responsibility and Environmental Management*, 27(3), 1227-1240.
- García-Sánchez, I. M., Gomez-Miranda, M. E., David, F., & Rodríguez-Ariza, L. (2019). The explanatory effect of CSR committee and assurance services on the adoption of the IFC

- performance standards, as a means of enhancing corporate transparency. *Sustainability Accounting, Management and Policy Journal*, 10(5) 773-797.
- García-Sánchez, I. M., Aibar-Guzmán, B., & Aibar-Guzmán, C. (2021). 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.
- Gillet, C. (2012). A study of sustainability verification practices: the French case. *Journal of Accounting & Organizational Change*, 8(1), 62-84.
- Gillet-Monjarret, C. (2015). Assurance of sustainability information: A study of media pressure. *Accounting in Europe*, 12(1), 87-105.
- Gillet-Monjarret, C. (2018). Assurance reports included in the CSR reports of French firms: A longitudinal study. *Sustainability Accounting, Management and Policy Journal*, 9(5), 570-594.
- Gillet-Monjarret, C. (2021). Promoting sustainability assurance missions in the European Directive regulatory context. *Journal of Applied Accounting Research*, 23(1), 184-206.
- Gillet-Monjarret, C., & Rivière-Giordano, G. (2017). Sustainability assurance: A literature review. *Accounting Auditing Control*, 23(2), 11-62.
- Goicoechea, E., Gómez-Bezares, F., & Ugarte, J. V. (2019). Integrated reporting assurance: Perceptions of auditors and users in Spain. *Sustainability*, 11(3), 713.
- Gray, R. (1992). Accounting and environmentalism: an exploration of the challenge of gently accounting for accountability, transparency and sustainability. *Accounting, organizations and society*, 17(5), 399-425.
- Gray, R. (2000). Current developments and trends in social and environmental auditing, reporting and attestation: a review and comment. *International journal of auditing*, 4(3), 247-268.
- Gray, R. (2010). Is accounting for sustainability actually accounting for sustainability and how would we know? An exploration of narratives of organisations and the planet. *Accounting, organizations and society*, 35(1), 47-62.
- Gary, R., Owen, D., & Adams, C. (1996). Accounting and Accountability: changes and Challenges in corporate social and environmental reporting.
- Green, W., & Li, Q. (2012). Evidence of an expectation gap for greenhouse gas emissions assurance. *Accounting, Auditing & Accountability Journal*, 25(1), 146-173.
- Green, W., & Taylor, S. (2013). Factors that influence perceptions of greenhouse gas assurance provider quality. *International Journal of Auditing*, 17(3), 288-307.
- Green, W., & Zhou, S. (2013). An international examination of assurance practices on carbon emissions disclosures. *Australian Accounting Review*, 23(1), 54-66.
- Green, W., Taylor, S., & Wu, J. (2017). Determinants of greenhouse gas assurance provider choice. *Meditari Accountancy Research*, 25(1), 114-135.
- 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.
- Haider, M. B., & Nishitani, K. (2020). Views of corporate managers on assurance of sustainability reporting: evidence from Japan. *International Journal of Disclosure and Governance*, 17(1), 1-19.
- Harymawan, I., Nasih, M., Salsabilla, A., & Putra, F. K. G. (2020). External assurance on sustainability report disclosure and firm value: Evidence from Indonesia and Malaysia. *Entrepreneurship and Sustainability Issues*, 7(3), 1500-1512.
- Hassan, A. (2019). Verbal tones in sustainability assurance statements: An empirical exploration of explanatory factors. *Sustainability Accounting, Management and Policy Journal*, 10(3), 427-450.
- Hasan, M., Maijoor, S., Mock, T. J., Roebuck, P., Simnett, R., & Vanstraelen, A. (2005). The different types of assurance services and levels of assurance provided. *International Journal of Auditing*, 9(2), 91-102.

- Hasan, M., Roebuck, P. J., & Simnett, R. (2003). An investigation of alternative report formats for communicating moderate levels of assurance. *Auditing: A Journal of Practice & Theory*, 22(2), 171-187.
- Hassan, A., Elamer, A. A., Fletcher, M., & Sobhan, N. (2020). Voluntary assurance of sustainability reporting: Evidence from an emerging economy. *Accounting Research Journal*, 33(2), 391-410.
- Hazaea, S. A., Zhu, J., Khatib, S. F., Bazhair, A. H., & Elamer, A. A. (2021). Sustainability assurance practices: A systematic review and future research agenda. *Environmental Science and Pollution Research*, 1-22
- Herda, D. N., Taylor, M. E., & Winterbotham, G. (2014). The effect of country-level investor protection on the voluntary assurance of sustainability reports. *Journal of International Financial Management & Accounting*, 25(2), 209-236.
- Hickman, L. E., & Cote, J. (2019). CSR reporting and assurance legitimacy: a client–assuror dyad investigation. *Journal of Applied Accounting Research*, 20(4), 372-393.
- 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.
- Hoang, H., & Phang, S. Y. (2021). How does combined assurance affect the reliability of integrated reports and investors' judgments?. *European Accounting Review*, 30(1), 175-195.
- 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.
- International Integrated Reporting Council (2021), “International integrated reporting framework”, available at <https://www.integratedreporting.org/wp-content/uploads/2021/01/InternationalIntegratedReportingFramework.pdf>
- Janggu, T., Darusi, F., Sawani, Y., & Zain, M. (2013). Assurance of CSR and sustainability reports: Empirical evidence from an emerging economy. *Journal of Energy Technologies and Policy*, 3(11), 390-396.
- Johnston, P., Everard, M., Santillo, D., & Robèrt, K. H. (2007). Reclaiming the definition of sustainability. *Environmental science and pollution research international*, 14(1), 60-66.
- Jones, M. J., & Solomon, J. F. (2010, March). Social and environmental report assurance: Some interview evidence. In *Accounting forum* 34(1), 20-31. No longer published by Elsevier.
- Jones, P., Hillier, D., & Comfort, D. (2014). Assurance of the leading UK food retailers' corporate social responsibility/sustainability reports. *Corporate Governance*, 14(1), 130-138.
- 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.
- Kend, M. (2015). Governance, firm-level characteristics and their impact on the client's voluntary sustainability disclosures and assurance decisions. *Sustainability Accounting, Management and Policy Journal*, 6(1), 54-78.
- Kılıç, M., Uyar, A., & Kuzey, C. (2019). The impact of institutional ethics and accountability on voluntary assurance for integrated reporting. *Journal of Applied Accounting Research*, 21(1), 1-18.
- Kim, S., Green, W. J., & Johnstone, K. M. (2016). Biased evidence processing by multidisciplinary greenhouse gas assurance teams. *AUDITING: A Journal of Practice & Theory*, 35(3), 119-139.

- Kolk, A. (2010). Trajectories of sustainability reporting by MNCs. *Journal of world business*, 45(4), 367-374.
- Kolk, A., & Perego, P. (2010). Determinants of the adoption of sustainability assurance statements: An international investigation. *Business strategy and the environment*, 19(3), 182-198.
- KPMG (2015), The KPMG Survey of Corporate Responsibility Reporting 2015. Zurich, Switzerland: KPMG International.
- KPMG (2020), The Time has Come. The KPMG Survey of Sustainability Reporting 2020, KPMG, Amsterdam.
- Lamberton, G. (1998). Exploring the accounting needs of an ecologically sustainable organisation. In *Accounting Forum*, 22(2), 186-209.
- Larrinaga, C., Rossi, A., Luque-Vilchez, M., & Núñez-Nickel, M. (2020). Institutionalization of the contents of sustainability assurance services: A comparison between Italy and United States. *Journal of Business Ethics*, 163(1), 67-83.
- Liao, L., Lin, T. P., & Zhang, Y. (2018). Corporate board and corporate social responsibility assurance: Evidence from China. *Journal of Business Ethics*, 150(1), 211-225.
- Manetti, G., & Becatti, L. (2009). Assurance services for sustainability reports: Standards and empirical evidence. *Journal of Business Ethics*, 87(1), 289-298.
- Manetti, G., & Toccafondi, S. (2012). The role of stakeholders in sustainability reporting assurance. *Journal of business ethics*, 107(3), 363-377.
- Maroun, W. (2017). Assuring the integrated report: Insights and recommendations from auditors and preparers. *The British Accounting Review*, 49(3), 329-346.
- Maroun, W. (2018). Modifying assurance practices to meet the needs of integrated reporting: The case for “interpretive assurance”. *Accounting, Auditing & Accountability Journal*, 31(2), 400-427.
- Maroun, W. (2019a). Does external assurance contribute to higher quality integrated reports? *Journal of Accounting and Public Policy*, 38(4), 106670.
- Maroun, W. (2019b). Exploring the rationale for integrated report assurance. *Accounting, Auditing & Accountability Journal*, 32(6), 1826-1854.
- Maroun, W., & Prinsloo, A. (2020). Drivers of combined assurance in a sustainable development context: Evidence from integrated reports. *Business Strategy and the Environment*, 29(8), 3702-3719.
- Martínez-Ferrero, J., & García-Sánchez, I. M. (2017a). Coercive, normative and mimetic isomorphism as determinants of the voluntary assurance of sustainability reports. *International Business Review*, 26(1), 102-118.
- Martínez-Ferrero, J., & García-Sánchez, I. M. (2017b). 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.
- Martínez-Ferrero, J., & García-Sánchez, I. M. (2018). The level of sustainability assurance: The effects of brand reputation and industry specialisation of assurance providers. *Journal of Business Ethics*, 150(4), 971-990.
- 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.
- Marx, B., & van Dyk, V. (2011). Sustainability reporting and assurance: An analysis of assurance practices in South Africa. *Meditari Accountancy Research*, 19(1/2), 39-55.
- Maso, L. D., Lobo, G. J., Mazzi, F., & Paugam, L. (2020). Implications of the joint provision of CSR assurance and financial audit for auditors' assessment of going-concern risk. *Contemporary Accounting Research*, 37(2), 1248-1289.

- Mock, T. J., Rao, S. S., & Srivastava, R. P. (2013). The development of worldwide sustainability reporting assurance. *Australian Accounting Review*, 23(4), 280-294.
- Mock, T. J., Strohm, C., & Swartz, K. M. (2007). An examination of worldwide assured sustainability reporting. *Australian Accounting Review*, 17(41), 67-77.
- Morimoto, R., Ash, J., & Hope, C. (2005). Corporate social responsibility audit: From theory to practice. *Journal of Business ethics*, 62(4), 315-325.
- Moroney, R., Windsor, C., & Aw, Y. T. (2012). Evidence of assurance enhancing the quality of voluntary environmental disclosures: an empirical analysis. *Accounting & Finance*, 52(3), 903-939.
- Nishitani, K., Haider, M. B., & Kokubu, K. (2020). Are third-party assurances preferable to third-party comments for promoting financial accountability in environmental reporting?. *Journal of cleaner production*, 248, 119199.
- O'Dwyer, B. (2011). The case of sustainability assurance: Constructing a new assurance service. *Contemporary Accounting Research*, 28(4), 1230-1266.
- 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.
- O'Dwyer, B., & Owen, D. (2007). Seeking stakeholder-centric sustainability assurance: An examination of recent sustainability assurance practice. *Journal of Corporate Citizenship*, (25), 77-94.
- O'Dwyer, B., Owen, D., & Unerman, J. (2011). Seeking legitimacy for new assurance forms: The case of assurance on sustainability reporting. *Accounting, Organizations and Society*, 36(1), 31-52.
- Owen, D. (2008). Chronicles of wasted time? A personal reflection on the current state of, and future prospects for, social and environmental accounting research. *Accounting, Auditing & Accountability Journal*, 21(2), 240-267.
- Owen, D. L., Swift, T., & Hunt, K. (2001, September). Questioning the role of stakeholder engagement in social and ethical accounting, auditing and reporting. In *Accounting forum*, 25(3), 264-282.
- Owen, D. L., Swift, T. A., Humphrey, C., & Bowerman, M. (2000). The new social audits: accountability, managerial capture or the agenda of social champions?. *European Accounting Review*, 9(1), 81-98.
- Parker, L. D. (2011, March). Twenty-one years of social and environmental accountability research: A coming of age. In *Accounting Forum*, 35(1), 1-10). No longer published by Elsevier.
- 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.
- Perego, P. (2009). Causes and consequences of choosing different assurance providers: An international study of sustainability reporting. *International Journal of Management*, 26(3), 412-425.
- 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.
- 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.
- 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.

- 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.
- Prinsloo, A., & Maroun, W. (2020). An exploratory study on the components and quality of combined assurance in an integrated or a sustainability reporting setting. *Sustainability Accounting, Management and Policy Journal*, 12(1), 1-29.
- Radhouane, I., Nekhili, M., Nagati, H., & Paché, G. (2019). Is voluntary external assurance relevant for the valuation of environmental reporting by firms in environmentally sensitive industries?. *Sustainability Accounting, Management and Policy Journal*, 11(1), 65-98.
- Reimsbach, D., Hahn, R., & Gürtürk, A. (2018). Integrated reporting and assurance of sustainability information: An experimental study on professional investors' information processing. *European accounting review*, 27(3), 559-581.
- Reverte, C. (2021). Do investors value the voluntary assurance of sustainability information? Evidence from the Spanish stock market. *Sustainable Development*, 29(5), 793-809.
- Richard, G., & Odendaal, E. (2020). Integrated reporting assurance practices—a study of South African firms. *International Journal of Disclosure and Governance*, 17(4), 245-266.
- Rivière-Giordano, G., Giordano-Spring, S., & Cho, C. H. (2018). Does the level of assurance statement on environmental disclosure affect investor assessment? An experimental study. *Sustainability Accounting, Management and Policy Journal*, 9(3), 336-360.
- Rodrigues, M. A. B., & Morais, A. I. (2021). How to challenge university students to work on integrated reporting and integrated reporting assurance. *Sustainability*, 13(19), 10761.
- Romero, S., Fernandez-Feijoo, B., & Ruiz, S. (2014). Perceptions of quality of assurance statements for sustainability reports. *Social Responsibility Journal*, 10(3), 480-499.
- Roseland, M., & Spiliotopoulou, M. (2016). Converging urban agendas: Toward healthy and sustainable communities. *Social Sciences*, 5(3), 28.
- Rossi, A., & Tarquinio, L. (2017). An analysis of sustainability report assurance statements: Evidence from Italian listed companies. *Managerial Auditing Journal*, 32(6), 578-602.
- 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.
- Quick, R., & Inwinkl, P. (2020). Assurance on CSR reports: impact on the credibility perceptions of non-financial information by bank directors. *Meditari Accountancy Research*, 28(5), 833-862.
- Sachs, J. D. (2012). From millennium development goals to sustainable development goals. *The lancet*, 379(9832), 2206-2211.
- Sawani, Y., Zain, M. M., & Darus, F. (2010). Preliminary insights on sustainability reporting and assurance practices in Malaysia. *Social Responsibility Journal*, 6(4), 627-645.
- Scheyvens, R., Banks, G., & Hughes, E. (2016). The private sector and the SDGs: The need to move beyond 'business as usual'. *Sustainable Development*, 24(6), 371-382.
- Secundo, G., Ndou, V., Del Vecchio, P., & De Pascale, G. (2020). Sustainable development, intellectual capital and technology policies: A structured literature review and future research agenda. *Technological Forecasting and Social Change*, 153, 119917.
- Seguí-Mas, E., Bolas-Araya, H. M., & 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.
- Sellami, Y. M., Hlima, N. D. B., & Jarboui, A. (2019). An empirical investigation of determinants of sustainability report assurance in France. *Journal of Financial Reporting and Accounting*, 17(2), 320-342.

- 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.
- Sheldon, M. D., & Jenkins, J. G. (2020). The influence of firm performance and (level of) assurance on the believability of management's environmental report. *Accounting, Auditing & Accountability Journal*, 33(3), 501-528.
- Shen, H., Wu, H., & Chand, P. (2017). The impact of corporate social responsibility assurance on investor decisions: Chinese evidence. *International Journal of Auditing*, 21(3), 271-287.
- Shen, Y., Su, Z. W., Huang, G., Khalid, F., Farooq, M. B., & Akram, R. (2020). Firm market value relevance of carbon reduction targets, external carbon assurance and carbon communication. *Carbon Management*, 11(6), 549-563.
- Sierra, L., Zorio, A., & García-Benau, M. A. (2013). Sustainable development and assurance of corporate social responsibility reports published by Ibex-35 companies. *Corporate Social Responsibility and Environmental Management*, 20(6), 359-370.
- Siltaoja, M. E., & Onkila, T. J. (2013). Business in society or business and society: the construction of business–society relations in responsibility reports from a critical discursive perspective. *Business Ethics: A European Review*, 22(4), 357-373.
- Simnett, R., Vanstraelen, A., & Chua, W. F. (2009). Assurance on sustainability reports: An international comparison. *The accounting review*, 84(3), 937-967.
- Simnett, R., & Huggins, A. L. (2015). Integrated reporting and assurance: where can research add value?. *Sustainability Accounting, Management and Policy Journal*, 6(1), 29-53.
- Simnett, R., Zhou, S., & Hoang, H. (2016). Assurance and other credibility enhancing mechanisms for integrated reporting. *Integrated reporting* (pp. 269-286). Palgrave Macmillan, London.
- Simoni, L., Bini, L., & Bellucci, M. (2020). Effects of social, environmental, and institutional factors on sustainability report assurance: Evidence from European countries. *Meditari Accountancy Research*, 28(6), 1059-1087.
- Smith, J., Haniffa, R., & Fairbrass, J. (2011). A conceptual framework for investigating ‘capture’ in corporate sustainability reporting assurance. *Journal of Business Ethics*, 99(3), 425-439.
- Steinmeier, M., & Stich, M. (2019). Does sustainability assurance improve managerial investment decisions?. *European Accounting Review*, 28(1), 177-209.
- SustainAbility. (2015). Sustainability: <http://www.sustainability.com/sustainability>
- The United Nations Climate Change Conference (COP26), available at <https://ukcop26.org/wp-content/uploads/2021/11/COP26-Negotiations-Explained.pdf>
- United Nations Development Programme (2020), “Sustainable development goals”, Sustainable Development Goals, available at: www.undp.org/content/undp/en/home/sustainable-development-goals.html
- Uyar, A., Kilic, M., & Kuzey, C. (2021). Investigating the role of national culture on integrated report assurance: international evidence. *Management Decision*, 60(7), 1875-1904.
- Velte, P., & Stawinoga, M. (2017). Integrated reporting: The current state of empirical research, limitations and future research implications. *Journal of Management Control*, 28(3), 275-320.
- Venter, E. R., & van Eck, L. (2021). Research on extended external reporting assurance: Trends, themes, and opportunities. *Journal of International Financial Management & Accounting*, 32(1), 63-103.
- Wallage, P. (2000). Assurance on sustainability reporting: An auditor's view. *Auditing: A Journal of Practice & Theory*, 19(s-1), 53-65.

- Wang, R., Zhou, S., & Wang, T. (2020). Corporate governance, integrated reporting and the use of credibility-enhancing mechanisms on integrated reports. *European Accounting Review*, 29(4), 631-663.
- Wong, R., & Millington, A. (2014). Corporate social disclosures: A user perspective on assurance. *Accounting, Auditing & Accountability Journal*, 27(55), 863-887.
- Wong, J., Wong, N., Li, W. Y., & Chen, L. (2016). Sustainability assurance: an emerging market for the accounting profession. *Pacific Accounting Review*, 28(3), 238-259.
- 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.
- Zhou, S., Simnett, R., & Hoang, H. (2019). Evaluating combined assurance as a new credibility enhancement technique. *Auditing: A Journal of Practice & Theory*, 38(2), 235-259.
- Zhou, S., Simnett, R., & Green, W. J. (2016). Assuring a new market: The interplay between country-level and company-level factors on the demand for greenhouse gas (GHG) information assurance and the choice of assurance provider. *Auditing: A Journal of Practice & Theory*, 35(3), 141-168.
- 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(7), 484-500.

APPENDICES

Appendix (1)

Table (1)

Summary of the literature reviewed

| <i>Serial no</i> | <i>Author</i> | <i>Research objective</i> | <i>Theory/ies</i> | <i>Research method</i> | <i>Publication Journal</i> | <i>Citation in Google Scholar</i> |
|---|--------------------------|---|------------------------|--|---|-----------------------------------|
| <i>The Assurance of Sustainability Reports</i> | | | | | | |
| 1 | Ackers (2009) | The study aims to investigate the CSR assurance trends internationally and compare it with the South African CSR assurance, and to find out if third party assurance can enhance the quality of the report. | None-descriptive study | Content analysis of assurance statements of the top 100 listed companies in South Africa for the year 2008 as well as comparison | Research Journal of the School of Accounting Sciences | 114 |
| 2 | Ackers (2017a) | Investigating if the company size and industry sector affect the decision to provide external assurance to CSR reports. | None-descriptive study | Content analysis of an annual and/or integrated and/or CSR reports of the largest 100 listed companies in South Africa from year 2007 to year 2014 | International Journal of Disclosure and Governance | 17 |
| 3 | Ackers (2017b) | Investigate to what extent largest companies listed on the Johannesburg Stock Exchange (JSE) provide third-party assurance | Stakeholder theory | Content analysis of the annual and/or CSR reports of largest companies listed on the Johannesburg Stock Exchange (JSE) from 2007 to 2014 | Environmental Accountability Journal | 15 |
| 4 | Ackers and Eccles (2015) | Investigates the affect of the SR assurance in South Africa as it is obligatory by the King III for all the listed companies Johannesburg stock exchange (JSE). | Slack resource Theory | Reviewing 200 CSR reports and analysed the assurance statements of CSR | Accounting, Auditing & Accountability Journal | 158 |
| 5 | Adams and Evans (2004) | Deal with two common issues regards sustainability repots which are the lack of credibility and completeness of reports by reviewing social audits. | None-descriptive study | How social audits can promote the credibility of sustainability reports as well as the completeness of these reports. | Journal of corporate citizenship | 405 |

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|----|-------------------------------|---|------------------------|--|---|-----|
| 6 | Alsahali and Malagueño (2021) | Explores global trends in sustainability report assurance processes, updating and broadening the existing literature and providing fresh insights that might influence future research. | None-descriptive study | Analysis of 633 sustainability assurance statement of 12,783 companies which in the GRI database. The study covers 6 years from 2012 to 2017 and the companies were from Africa, Asia, Europe, Latin America and the Caribbean, Northern America, and Oceania. | Journal of Accounting & Organizational Change | 2 |
| 7 | Al-Shaer and Zaman (2019) | The study investigate the impact of sustainability committees and independent third-party assurance provider on the inclusion of sustainability-related goals in CEO remuneration contracts | None-descriptive study | The study used logistic regression of 1345 companies listed in the UK FTSE350 from 2011 to 2015. | Journal of Business Ethics | 73 |
| 8 | Baboukardos et al. (2021) | The study examines if an organization's choice to provide an assurance to their sustainability report is influenced by integrated thinking. | None-descriptive study | Analysis 19,076 observations by 2,774 unique firms from 10 different industries from 47 countries from 2002 to 2016. | Business Strategy and the Environment | 7 |
| 9 | Ball et al. (2000) | Investigating to what extent third-party assurance can enhance transparency of the organisations. | None-descriptive study | Content analysis of 79 environmental reports and related to third party assurance in the UK from the short-listed by the ACCA ERAS awarded in 1998 | Business strategy and the environment | 419 |
| 10 | Ballou et al. (2012) | The study investigates how three types of accounting competence (risk identification and assessment, financial reporting, and independent review/assurance) might help with strategic sustainability integration. | None-descriptive study | Survey of 178 participants members of the Corporate Responsibility Officer Association (CROA). | Accounting Horizons | 207 |
| 11 | Ballou et al. (2006) | Discusses a great potential for auditors to develop a new line of assurance services for CSRs that contain largely non-financial data regarding a variety of non-traditional categories. | None-descriptive study | Discussing the opportunity and the challenges that GRI creates to organisations to provide external assurance to their sustainability reports, and the efforts to improve the criteria of reports | Journal of Accountancy | 458 |
| 12 | Ballou et al. (2018) | Examining if the assurance service of CSR enhances the quality of CSR reports, and if the quality reports can improve more by accounting assurance providers more than non-accounting assurance providers. | None-descriptive study | The study used regression analysis of the data collected from KPMG survey in 2010 of the top 250 companies listed on the Fortune Global 500 and the 100 largest companies by revenue from 34 countries | Journal of Accounting and Public Policy | 83 |
| 13 | Beets and Souther (1999) | The study focused on the importance of environment standards and its assurance service | None-descriptive study | Discuss the importance of the third-party assurance of sustainability reports and how sustainability reports lack of credibility | Accounting Horizons | 274 |

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|----|---------------------------------------|---|--|--|--|-----|
| 14 | Belal (2002) | Assesses social reports by comparing them to the AA1000 standards, with a focus on inclusion and completeness. | Stakeholder theory | The paper used content analysis of 13 social reports, 9 of them were assured by third-party assurance | Corporate Social Responsibility and Environmental Management | 246 |
| 15 | Bepari and Mollik (2016) | Investigating how much assurance statements help to improve and maintain organisational transparency and responsibility to stakeholders. | Legitimacy theory and stakeholder theory | Content analysis using a research instrument developed by O'Dwyer and Owen (2005), and analysing the assurance guideline (GRI) and assurance standards AA1000As 2008 and ISAE3000 | Managerial Auditing Journal | 51 |
| 16 | Birkey et al. (2016) | Examines if independent CSR report assurance leads to higher external assessments of a company's environmental reputation in the United States. | None-descriptive study | Analysis 351 of standalone CSR report which listed on the Newsweek magazine assessment for two years 2009 and 2010 of the greenest companies in America. Out of 351 reports 165 for the year 2009 and the remaining for the year 2010. | Accounting Forum | 110 |
| 17 | Boiral and Gendron (2011) | Exploring how certification auditing may help organisations achieve organisational accountability for sustainable development. | None-descriptive study | The study used critical analysis of financial and ISO auditing | Business Strategy and the Environment | 234 |
| 18 | Boiral and Heras-Saizarbitoria (2020) | Examine the reliability of assurance statements for sustainability reports and how they contribute to stakeholder accountability. | None-descriptive study | Content analysis of 337 sustainability assurance reports from the energy and mining sectors | Journal of Cleaner Production | 64 |
| 19 | Boiral et al. (2019a) | Explores how assurance providers understand and deal with the ethical issues of sustainability assurance | Grounded theory | Semi-structured interview with 38 assurance providers of sustainability reports (23 are accounting and 15 non-accounting providers) | Journal of Business Ethics | 63 |
| 20 | Boiral et al. (2019b) | The study investigates the sustainability assurance providers' professionalism and professionalization. | None-descriptive study | Semi-directed interviews of 38 accounting and non-accounting assurance providers using three different languages | Accounting, Auditing & Accountability Journal | 21 |
| 21 | Bollas-Araya et al. (2019) | Examining what factors impact the adoption of sustainability reporting and seeking for assurance practice, as well as the quality of the assurance service. | Multi-theoretical framework | Content analysis of 300 organisations from 28 countries for four year, from 2010 to 2013. | Australian Accounting Review | 19 |
| 22 | Braam et al. (2016) | Investigate the link between assurance and the scope and character of environmental reporting. | Legitimacy theory | the paper used a content analysis of 100 Dutch public and private companies for 3 years (from 2009 to 2011) | Journal of cleaner production | 246 |

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|----|--------------------------------|--|-----------------------------------|---|---|-----|
| 23 | Bramanti et al. (2021) | The study investigates the link between the quality of SR, external assurance quality, external assurance utilisation, financial access, and environmental performance. | None-descriptive study | Analysis sustainability reports disclosure in the listed companies in Indonesia on the Indonesia Stock Exchange and company performance improvement appraisal program (PROPER) from 2014 to 2019. | Business and Finance Journal | 0 |
| 24 | Branco et al. (2014) | Factors impacting the need in Portugal for sustainability assurance | None-descriptive study | The study analysis 237 sustainability reports from 69 Portuguese companies for the period 2008 to 2011. | Managerial Auditing Journal | 125 |
| 25 | Brown-Liburd and Zamora (2015) | Investigate the effect of CSR assurance when information on CSR investment levels is combined with data on whether or not executive pay is expressly linked to sustainability. | Neo-institutional theory | The study used experiment of 116 participants to examine individual U.S. investors' judgment of the role of CSR assurance | Auditing: A Journal of Practice & Theory | 161 |
| 26 | Canning et al. (2019) | Exploring how the concepts financial audit such as materiality can be relocated to non-financial area when providing assurance | None-descriptive study | Case study and in-depth-interview with one of the 4 big professional service firms which operate in two European countries, (Netherlands and Belgium). 14 interviews in total, 7 accounting assurance, 6 non-accounting assurance, and 1 is a manager | Accounting and Business Research | 55 |
| 27 | Casey and Grenier (2015) | Investigate the market of sustainability assurance in USA | Numerous theoretical perspectives | The study analysis of 4563 Corporate Social Responsibility reports in USA which 230 are independently assured from the years 1993 to 2010. | Auditing: A Journal of Practice & Theory | 320 |
| 28 | Channuntapipat (2021) | The study investigates what other role beside verification that sustainability reporting assurance plays. | None-descriptive study | The study interviewed 19 assurance providers from both sectors accounting and non-accounting assurance. all of them were from UK | Business Strategy and the Environment | 4 |
| 29 | Channuntapipat et al. (2019) | Providing comprehensive understanding of the sustainability assurance in the UK market, and the diversity of the sustainability assurance. | Actor-network theory | Semi-structured interview with 21 assurance providers (from both accounting and non-accounting assurance providers) | Accounting, Auditing & Accountability Journal | 28 |
| 30 | Channuntapipat et al. (2020) | Investigating sustainability assurance as a competition field between accounting assurance providers and non-accounting assurance providers | None-descriptive study | Conducted interviews with 19 participating in UK, 14 of them were from the four big accounting firms | The British Accounting Review | 24 |

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|----|------------------------|--|---|---|--|-----|
| 31 | Chen and Cheng (2020) | Explain firm-level corporate social responsibility assurance decisions and why public family firms' susceptibility to mimetic influences from previous corporate social responsibility assurance adopters in the same industry varies with time. | Neo-institutional theory | Regression analysis of corporate social responsibility reports of 1230 firm-year observations listed in the Taiwan Economic Journal (TEJ) database for the years 2014 through 2017 from 31 Industry. | Journal of Accounting and Public Policy | 5 |
| 32 | Cheng et al. (2015) | Investigate if and how sustainability assurance affects non-professionals investment decisions. | None-descriptive study | Experiment 2*2 between-subjects the two independent variables are strategic relevance (high versus low) and assurance (absent versus present). | Auditing: A Journal of Practice & Theory | 219 |
| 33 | Cho et al. (2014) | Exploring what elements enhance USA firms to provide third-party assurance to their corporate social responsibility reports and if this assurance is seeming to be valued from the perspective of stakeholders. | None-descriptive study | The paper used logistic regression analysis of Fortune 500 USA firms for the year 2010 | Sustainability Accounting, Management and Policy Journal | 210 |
| 34 | Clarkson et al. (2019) | Explore the organisations' decision to assure their sustainability reports and how this assurance practice effect on the Dow Jones Sustainability Index Inclusion and Firm Valuation | Signalling theory | The paper used logistic regression model and a sample of 17050 firm year observation from 2009 to 2015 from 40 countries. | Accounting, Auditing & Accountability Journal | 62 |
| 35 | Cooper and Owen (2007) | Explore how companies engage their stakeholders in sustainability reporting and assurance | Accountability lens | Analysed twelve sustainability reports from UK (short-listed for the Social and Sustainability categories of the 2003 ACCA UK Sustainability Reporting Awards Scheme). | Accounting, Organizations and Society | 864 |
| 36 | Coram et al. (2009) | Investigate the effect of voluntary assurance on users' anticipated share price of reporting organisation based on non-financial performance factors. | Attribution theory, and Framework proposed by Mercer (2004) | Experiment conducted in Australia. Participants were given a fictitious annual report that included financial and non-financial information (in some cases favourable, in others bad performance) as well as assurance claims (present in some reports, whereas missing in others). | Auditing: A Journal of Practice & Theory | 187 |

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|----|------------------------------------|--|--|---|--|-----|
| 37 | Cuadrado-Ballesteros et al. (2017) | The study explores how sustainability assurance might help to reduce information asymmetry by lowering dispersion and increasing accuracy in financial analysts' profit estimates. | Stakeholder theory and agency theory | Analysis of sustainability reporting of 1145 observations for 316 companies in the period 2007–2014 | International Business Review | 79 |
| 38 | Dando and Swift (2003) | Investigates how third-party assurance can enhance the credibility gap of the sustainability reports and how AA1000s assurance standards helps assurance providers | None-descriptive study | The study consulted 150 assurance practitioners and thought leaders to comment on the credibility gap of social, ethical and environmental disclosure, and the capability of assurance standards (AA1000AS) to enhance or address concerns in this area. | Journal of Business Ethics | 526 |
| 39 | Darnall et al. (2009) | Investigate different types of environment audits that organisations use and the impact of these types on stakeholders | Stakeholder theory | The study collected data from global survey conducted by Organization for Economic Co-Operation and Development (OECD) in 2003. This survey has been done in 7 countries. | Accounting, Organizations and Society | 269 |
| 40 | Darus et al. (2014) | Investigate the issues that are preventing manufacturing businesses in Malaysia from voluntarily adopting independent corporate social responsibility assurance (CSRA) processes. | The theory of reasoned action | Data collected by conducting an online survey, 316 participants in this online survey from 72 manufacturing companies that were listed in Malaysia. | Managerial Auditing Journal | 45 |
| 41 | Datt et al. (2018) | The study examines the impetus of the companies to provider assurance to their carbon emission in sustainability reports. | Legitimacy, namely, information asymmetry, signaling, and institutional theory | The study used logit regression to analysis the data. The study used 5,184 firm-year observations from 44 countries from year 2010 to 2014 | Journal of International Accounting Research | 31 |
| 42 | Datt et al. (2019) | Investigates how legitimacy risks affect a company's desire to secure third-party carbon assurance. | Legitimacy theory | The study analysis disclosure reports related to the carbon emissions in the largest USA companies. The total sample was consisting of 599 USA companies that were invited by the CDP to complete the climate change program survey for four years of the period 2010-2013. | Accounting Research Journal | 23 |
| 43 | Datt et al. (2020) | Examining the motivations of organisations for choosing between accounting and non-accounting assurance providers. | Legitimacy theory and stakeholder theory | The study used logit regression model of 3,635 international firm from year 2010 to 2014 | International Journal of Auditing | 15 |

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|----|------------------------------|--|------------------------|---|--|-----|
| 44 | De Moor and De Beelde (2005) | The study aims to identify the difference and similarities between the financial auditing and environmental audit | None-descriptive study | Literature review | Environmental Management | 94 |
| 45 | Dcaux and Sarens (2015) | The study aims to examine how to use the combined assurance | None-descriptive study | The study interviewed 23 multinational participants | Managerial Auditing Journal | 56 |
| 46 | Deegan et al. (2006a) | Explore if the Australian companies includes the key elements of the triple bottom line report assurance statement | None-descriptive study | Reviewed assurance statements in Australia (33 assurance statements) | Australian Accounting Review | 116 |
| 47 | Deegan et al. (2006b) | Analysis the TBL reports assurance statements in UK and Europe | None-descriptive study | Reviewed assurance statements (triple bottom line reports) (48 report form UK and 52 reports from 52 from Europe) Additional sample added 33 TBL from Australia, and 16 from Japan) | Managerial Auditing Journal | 286 |
| 48 | Dilla et al. (2019) | Exploring if investor perceptions of the advantages of company environmental responsibility reduce the impact of environmental performance and assurance information on their decisions. | None-descriptive study | An online study has been used in this research, 278 non-professional investors participate in this study, all of them from USA. | Sustainability Accounting, Management and Policy Journal | 19 |
| 49 | Dillard (2011) | Aims to find out how accounting assurance providers and non-accounting assurance providers structure this service | None-descriptive study | The study review O'Dwyer 2011 work | Contemporary Accounting Research | 29 |
| 50 | Du and Wu (2019) | Investigating the reliability of corporate social responsibility (CSR) reports and the influence of third-party assurance on corporate social responsibility reports. | None-descriptive study | Analysing 509 corporate social responsibility report of listed firms traded on the Taiwan Stock Exchange from 2005 to 2013. | Auditing: A Journal of Practice & Theory | 31 |
| 51 | Dutta (2019) | The aim is to explore if corporate environmental performance (CEP) has a substantial impact on third party assurance of sustainability reports. | Legitimacy theory | analysing 176 firm-year observations for listed Finnish companies which has issued sustainability reporting from 2008 to 2015. | Social Responsibility Journal | 7 |
| 52 | Edgley et al. (2010) | The study aim is to give substantial interview evidence on the social and environmental report assurance procedure. | Dialogic theory | Semi-structured interviews of 20 assurance providers from both accounting and non-accounting assurance providers | Accounting, Auditing & Accountability Journal | 177 |
| 53 | Edgley et al. (2015) | Examines the value of the social and environmental reporting, and the process of social and environmental reporting assurance. | Institutional logics | Interviewed 20 assurance providers, 12 are non-accounting assurance providers from UK and the rest from the four big accounting firms | The British Accounting Review | 127 |

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|----|--------------------------------|--|------------------------|--|---|----|
| 54 | Ekasingh et al. (2019) | Investigate the effects of educational diversity and team member elaboration on the efficacy of interdisciplinary greenhouse gas assurance teams. | None-descriptive study | The study analysis Greenhouse Gas assurance professionals experience in Australia. In total, there are 64 participants, 35 Assurance providers, 8 partners and directors, 9 managers, and 7 staff and seniors. | Behavioral Research in Accounting | 4 |
| 55 | Farooq and de Villiers (2017) | Reviewing the existing articles related to sustainability assurance and providing wider understanding of the topic and highlighting the future research opportunity | Literature review | Reviewing 50 articles related to sustainability assurance | Pacific Accounting Review | 69 |
| 56 | Farooq and de Villiers (2018) | The study exploring the competition between accounting assurance providers and non-accounting assurance providers | Institutional theory | The paper used interview with 15 sustainability assurance providers and 35 sustainability assurance managers | Accounting, Auditing & Accountability Journal | 58 |
| 57 | Farooq and de Villiers (2019) | The study aims to explore how the promotion of sustainability assurance by sustainability assurance providers (SAPs) affects the scope of engagements, the consequences for professional and management capture | Institutional theory | The study used an interview with assurance providers, and sustainability reporting managers totally of 50 participants (15 assurance providers and 35 sustainability reporting managers) from two countries New Zealand and Australia. | Accounting, Auditing & Accountability Journal | 29 |
| 58 | Ferguson and Pündrich (2015) | The study aims to provide evidence on the value of third-party assurance of sustainability reports in Australia companies where the assurance of public resource disclosures made under the JORC Code by Australian Mining Development Stage Entities are mandatory. | None-descriptive study | Analysing 1,467 non-financial reports from 404 Mining Development Stage Entities in Australia | Auditing: A Journal of Practice & Theory | 41 |
| 59 | Fernandez-Feijoo et al. (2015) | This study examines the factors that influence a company's decision to provide assurance to its sustainability report and to choose between the big four accounting firms. | None-descriptive study | The study used two samples: first, analysis of sustainability reports of 2200 companies from 28 countries. Second, analysing sustainability assurance reports of 874 companies for the period 2011 to 2013. | Australian Accounting Review | 67 |
| 60 | Fernandez-Feijoo et al. (2016) | Provide a better knowledge of the function of each of the four largest accounting firms (Big 4) in the assurance industry. | None-descriptive study | Analysis of 1378 sustainability reports from 739 companies which assured by both accounting and non-accounting assurance providers. The sample was from 18 countries. | Journal of Cleaner Production | 51 |

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|----|--------------------------------|---|---|--|--|-----|
| 61 | Fernandez-Feijoo et al. (2018) | The study investigates if geographical disparities affect industry specialisation of sustainability assurance market. | Institutional theory | Logistic regression analysis of 3657 sustainability reports with assurance statements from the Global Reporting Initiative. | Management Decision | 8 |
| 62 | Flasher et al. (2018) | Investigates accounting companies' involvement in the establishment of sustainability standards | None-descriptive study | The study used content analysis of 370 comment letters in response to assurance standards setting | Research in Accounting Regulation | 9 |
| 63 | Fuhrmann et al. (2017) | The study examines how the assurance of sustainability reports improves the credibility of the reports from the perspective of the investors. | None-descriptive study | Analysis of 1139 firm with 221 assured GRI reports from European companies for two years 2008 and 2009. | Accounting and Business Research | 102 |
| 64 | Gal and Akisik (2020) | The study explore how internal control, third-party assurance, and integrated reports can affect the market value. | Shareholder theory and stakeholder theory | Analysis of Financial data and integrated reports and third-party assurance providers from both from Compustat North America, and from the GRI website respectively for 6 years from 2001 to 2016. | Corporate Social Responsibility and Environmental Management | 27 |
| 65 | García-Sánchez et al. (2019) | Examine the CSR committee's and assurance services' roles in supporting this practise. | None-descriptive study | Analysis (regression analysis) CSR reports of 750 international companies according to the Forbes index for six years from 2011 to 2016 from 19 countries and operating in 22 different sectors. | Sustainability Accounting, Management and Policy Journal | 35 |
| 66 | García-Sánchez et al. (2021) | Examine the involvement of institutional investors in a firm's choice to acquire sustainability assurance services and to assess the advantages of sustainability assurance for capital market functioning. | Agency theory | Analysis of 1,564 multinational companies who are issuing CSR reports which is available in the Thomson Reuters Database for 16 years from 2002 to 2017. | Sustainability Accounting, Management and Policy Journal | 8 |
| 67 | Gillet (2012) | Investigates the application of companies to provide external assurance to their sustainability reports in France | None-descriptive study | Analysis of 29 sustainability assurance statements published by French listed companies. Also 7 semi-structured interviews with sustainability department managers, and three assurance providers. | Journal of Accounting & Organizational Change | 86 |

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|----|--|---|--|--|--|-----|
| 68 | Gillet-Monjarret (2015) | Explores the impact of the media on companies' decision to provide external assurance to their sustainability reports. | Legitimacy theory | The paper reviewed articles published in national newspaper related to French listed companies which divided into three groups (positive, negative and neutral) for 4 years started from 2007 to 2010. | Accounting in Europe | 45 |
| 69 | Gillet-Monjarret (2021) | Explores the different types of marketing of sustainability assurance used by assurance providers to improves the quality of non-financial information | Legitimacy theory and Neo-institutional theory | Content analysis of SA information and conducted a survey of 29 third-party assurance located in France from accounting and non-accounting sectors. | Journal of Applied Accounting Research | 1 |
| 70 | Gillet-Monjarret and Rivière-Giordano (2017) | Providing a literature review of the sustainability assurance | Literature review | Analysing 56 journal articles of sustainability assurance | Accounting Auditing Control | 13 |
| 71 | Gillet-Monjarret, (2018) | The study explores the sustainability assurance in the French companies and the content of the assurance reports. | None-descriptive study | The authors used longitudinal study; the sample is 19 listed companies in France and 135 sustainability reports from year 2001 to 2015. | Sustainability Accounting, Management and Policy Journal | 19 |
| 72 | Gray, R. (2000) | Provide a review of the current social and environment reporting and the development of these reports | None-descriptive study | Aims to clarify terminology, the existing weakness of this practice, and the opportunities for accounting profession in this area. | International journal of auditing | 462 |
| 73 | Green and Li (2012) | Investigates if there is an expectation gap between different stakeholders when it comes to greenhouse gas emissions assurance. Furthermore, the article aims to examine how stakeholder expectations are impacted by the uncertainties that come with assurance engagements in various industries. | None-descriptive study | Survey three stakeholder groups: 35 statement preparers 22 statement assurers, and 25 non-institutional shareholders. | Accounting, Auditing & Accountability Journal | 88 |
| 74 | Green and Taylor (2013) | Examining the important elements that determine views of greenhouse gas (GHG) assurance provider quality. | None-descriptive study | The paper used survey of 53 participants, the participants are 19 preparers, 15 users, and 19 assurers all in Australia. | International Journal of Auditing | 34 |

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|----|-----------------------------|--|--------------------------|---|--|-----|
| 75 | Green and Zhou (2013) | The study aims to explore the assurance service which related to the carbon emissions disclosures internationally | None-descriptive study | Analysis 3008 companies from 43 countries over the world from 2006 to 2008. The data comes from CDP database. CDP conducted a survey among the largest companies worldwide. | Australian Accounting Review | 40 |
| 76 | Green et al. (2017) | The goal is to figure out what factors impact organisation's decision to choose between accounting and non-accounting greenhouse gas assurance companies. | None-descriptive study | The paper used a survey of 25 organisation officers who are in charge for reporting and voluntarily assurance of greenhouse gas emissions in Australia | Meditari Accountancy Research | 31 |
| 77 | Gürtürk and Hahn (2016) | Investigate the quality of assurance statements in sustainability reports, as well as the similarities and variations across them. | Neo-institutional theory | Content analysis of sustainability assurance of UK FTSE 100 companies, as well as by German DAX and MDAX companies, for one-year 2013. | Journal of cleaner production | 163 |
| 78 | Haider and Nishitani (2020) | Investigate the perspectives of business executives on the current condition of this developing assurance technique in Japan, as well as its future possibilities. | Legitimacy theory | The study conducted six semi-structured interview and a questionnaire survey of the top 500 companies listed in the Tokyo Stock Exchange. Two questionnaires has been done, one for companies that adopt assurance and one for companies that have third party comment on their sustainability reports, the total participants of the survey were 87. | International Journal of Disclosure and Governance | 11 |
| 79 | Harymawan et al. (2020) | Explores the extent of third-party assurance on sustainability reports of the listed companies in two countries (Malaysia and Indonesia) and if it adds a value to firms. | Legitimacy theory | Content analysis of assurance statement of sustainability reports for 84 listed companies in Malaysia from the period 2010 to 2016 | Entrepreneurship and Sustainability Issues | 17 |
| 80 | Hasan et al. (2003) | The study investigates the usage of different sustainability assurance statement forms and how this affects users'/shareholders' perceptions of the sustainability assurance provider's degree of assurance. | None-descriptive study | The study used Questionnaire of 792 participants from Australian stakeholders investigating how the use of 4 assurance statement formats can affect the assurance level among users. | Auditing: A Journal of Practice & Theory | 105 |

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|----|-------------------------|---|----------------------------|---|--|-----|
| 81 | Hasan et al. (2005) | Investigate the difference between types of assurance and the level of assurance which provided by the big 5 accounting firms and compare them by another 5 firms. | None-descriptive study | Conducting a questionnaire survey of 10 audit firms (the big 5 accounting firms, and another 5 non big firms) from 11 countries Australia, Brazil, Canada, Denmark, France, Germany, Japan, Mexico, UK, Singapore, and the Netherlands. | International Journal of Auditing | 130 |
| 82 | Hassan (2019) | The study looks at how sustainability experts utilise optimism and assurance to persuade others. The article also looks at a few explanatory variables that might help explain why various linguistic tones are used in sustainability assurance reports. | Language expectancy theory | The paper analysis sustainability assurance reports of 162 companies from FT Global-500. | Sustainability Accounting, Management and Policy Journal | 8 |
| 83 | Hassan et al. (2020) | Examining the supply and demands of sustainability assurance in Bangladesh. | Signalling theory | Analysis the factors of demand and supply of the assurance of sustainability reports among the 100 largest companies in Bangladesh. | Accounting Research Journal | 37 |
| 84 | Hazaea et al. (2021) | The study provides a literature review of sustainability assurance, and future research opportunities | Literature review | Reviewing 94 articles related to sustainability assurance from 1993 to 2021 | Environmental Science and Pollution Research | 5 |
| 85 | Herda et al. (2014) | Explore the effect of country-level investor protection on the decisions of sustainability assurance. | None-descriptive study | Analysis of 599 sustainability reports which external assured and issued using GRI guidelines published from 2005 to 2009 (over five years) which are available in the Compustat North America or Compustat Global databases. | Journal of International Financial Management & Accounting | 88 |
| 86 | Hickman and Cote (2019) | Investigate what challenges facing the legitimacy of CSR reports and assurance in USA | legitimacy theory | Semi-structured interview with vice president of 200 firms, also with assurance providers of the top 20 accounting firms | Journal of Applied Accounting Research | 15 |
| 87 | Hodge et al. (2009) | Effect of sustainability assurance on the perceived reliability of sustainability reports by non-professional investors. | None-descriptive study | A survey conducted in two Universities in Australia, 145 participants in this survey (students) who enrolled in an MBA programme. | Australian accounting review | 343 |
| 88 | Hummel et al. (2019) | Aims to provide a good understanding of assurance quality and the way of measuring this quality. | Neo-institutional theory | Analysis sustainability assurance statement of 122 European firms listed in Bloomberg European 500 index in 2013 from 18 sectors groups. | Journal of Business Ethics | 73 |

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|----|--------------------------|---|---|--|--|-----|
| 89 | Janggu et al. (2013) | The study examines if the Malaysian companies apply the major requirements of the ISAE3000 assurance standards | None-descriptive study | The study used content analysis of eight assurance statements from listed companies in Malaysia in year 2010. | Journal of Energy Technologies and Policy | 7 |
| 90 | Jones and Solomon (2010) | Investigating if organisations in UK consider social and environmental report assurance to be important. | None-descriptive study | The study interviewed 20 representatives of social and environmental reports from top UK listed companies for the year 2004. | Accounting forum | 202 |
| 91 | Jones et al. (2014) | Investigate the employment of external assurance of sustainability reports in the top ten food companies in UK. | None – descriptive study | Analysis of assurance statements in UK's top ten food retailers | Corporate Governance | 50 |
| 92 | Junior et al. (2014) | Provide information about the sustainability reporting and its assurance, the type of assurance provides, and analysing the service worldwide | None-descriptive study | Literature review as well as analysing the top 500 ranking companies on the Fortune Global provided a sustainability report in 2010 | Journal of business ethics | 385 |
| 93 | Kend (2015) | Examine three different bodies of literature, first, voluntary sustainability reporting disclosure and as well as firm-level corporate governance; the use of external assurance service; finally, the type of assurance providers. | Stakeholder theory | Analysis sustainability reports of the top 200 companies listed in United Kingdom and Australia for the year 2010. | Sustainability Accounting, Management and Policy Journal | 82 |
| 94 | Kim et al. (2016) | Examine how auditors react to team members' discipline-specific competence when performing greenhouse gas (GHG) assurance. | None-descriptive study | Experiment 2*3 of 104 participants from the Big 4 accounting firms in Australia for the period 20014 and 2015. 84 out of 104 are seniors and 20 are managers. | Auditing: A Journal of Practice & Theory | 14 |
| 95 | Kolk and Perego (2010) | The paper examined the elements that influence voluntary decisions to ensure social, environmental, and sustainability reporting. | None-descriptive study | Analysing of sustainability reporting of 212 Fortune Global 250 companies for the years three years 1999, 2002, and 2005, and the most companies comes from 5 countries which are (USA, UK, Japan, France, and German) | Business strategy and the environment | 719 |
| 96 | Larrinaga et al. (2020) | Examine if and how various assurance disclosure procedures developed standards in specific groups. | Institutional theory | The study used exploratory and longitudinal analysis and used sustainability reports assurance statements of the largest companies from Italy and USA from year 2003 to 2013. | Journal of Business Ethics | 32 |
| 97 | Liao et al. (2018) | Examine the relationship between the board characteristic and the firm's corporate social responsibility assurance decision in China | Resource dependency theory, the agency theory, and critical mass theory | The paper used Simnett et al. (2009) logistic regression model of 2054 firms for the period 2008-2012. | Journal of Business Ethics | 221 |

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| 98 | Manetti and Becatti (2009) | Assess sustainability assurance by comparing assurance statements to standard requirements. The research also discusses the flaws of the sustainability assurance standards | None-descriptive study | Analysis of Sustainability assurance standards and 34 sustainability assurance statements from Asia, Europe, South America and North America. | Journal of Business Ethics | 396 |
| 99 | Manetti and Toccafondi (2012) | Investigating if stakeholders consult and engage in the assurance process by assurance providers. | None-descriptive study | Content analysis of assurance statements reports of 161 from international organisations. | Journal of business ethics | 251 |
| 100 | Martínez-Ferrero and García-Sánchez (2017a) | Investigating how assurance sustainability reports can be affected from country to country and industry to other by identifying institutional forces | Neo-institutional theory | The study used logistic regression of 696 international companies from 2007 to 2014. | International Business Review | 247 |
| 101 | Martínez-Ferrero and García-Sánchez (2017b) | Explore the impact of sustainability assurance credibility and the kind of assurance provider on cost of capital. | Voluntary disclosure theory | Analysing sustainability assurance reports of 1,410 international companies from the year 2007 to 2014. | Business Ethics: A European Review | 67 |
| 102 | Martínez-Ferrero and García-Sánchez (2018) | Investigates the link between various assurance provider characteristics and the level of sustainability assurance. | Neo-institutional theory | Analysis 305 companies from 16 countries divided into two groups (non-specialised industries) includes 36 companies, and (specialised industries) includes 269. This gives 1233 firm year observations over 8 years from 2007 to 2016. | Journal of Business Ethics | 73 |
| 103 | Martínez-Ferrero et al. (2018) | Examine the quality of the sustainability assurance report as well as some of the factors that go into it (expertise and experience). | Neo-institutional theory | Analysis sustainability assurance reports of 242 companies from 17 countries (majority from EU) over 8 years from 2007 to 2014. | Business Strategy and the Environment | 40 |
| 104 | Marx and van Dyk (2011) | Providing a comprehensive understanding of sustainability assurance in South Africa | None-descriptive study | The study used content analysis of 66 sustainability reports of the companies listed on the JSE's SRI Index for 2009 | Meditari Accountancy Research | 110 |
| 105 | Maso et al. (2020) | Investigate if the same audit firm's dual offering of corporate social responsibility assurance services and financial audit effects auditors' assessments of going-concern risk. | None-descriptive study | Analysis of 28,661 CSR reporting and assurance from 55 countries of the listed companies in Thomson Reuters Asset 4 which used the big four accounting firms for the period of 2002-2017. The highest percentage of the sample was from US. | Contemporary Accounting Research | 33 |

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| 106 | Michelon et al. (2015) | Examine the use and the abuse of stand-alone reports and their assurance as well as stand-alone reports guidance. | Legitimacy theory | The authors used content analysis of 112 firms listed on the London Stock Exchange from 2005 to 2007 | Critical perspectives on accounting | 731 |
| 107 | Michelon et al. (2019) | The paper aims to investigate how sustainability restatements can be used by sustainability assurance providers to generate legitimacy in sustainability reporting assurance service. | Theory of professionalization | Logistic regression model has been used of 500 USA firms from 2010 to 2014 | European Accounting Review | 91 |
| 108 | Mock et al. (2007) | The study examines which countries and sectors are more likely to have assurance statements, what degrees of assurance are offered, and what variables influence the amount of assurance offered. | None-descriptive study | Statistical analysis of 126 assured sustainability reports over the world which provide an assurance of sustainability reports form three years (2002 to 2004). | Australian Accounting Review | 254 |
| 109 | Mock et al. (2013) | Explore the development of the assurance of sustainability reports | None-descriptive study | Comparing 148 of sustainability assurance statement published in two years (2006,2007) with the findings of study by Mock et al. (2007) which covered the period of 2002,2003 and 130 of sustainability reports from 26 countries. | Australian Accounting Review | 127 |
| 110 | Morimoto et al. (2005) | Investigating The idea of building a new corporate social responsibility (CSR) auditing system | Grounded theory | The study analysis the current literature review and conduct an interview with 10 of stakeholders | Journal of Business ethics | 325 |
| 111 | Moroney et al. (2012) | Investigates if the quality of voluntary environmental disclosures improves when they are providing assurance, as well as if the quality of the report is different when is assured by accounting or non-accounting assurance providers. | Stakeholder – agency perspective | Content analysis of sustainability assurance reports of the top 500 public companies listed on the Australian Securities Exchange, and comparing 74 companies which assured their sustainability reports with 74 companies which did not assure their sustainability reports from 2003 to 2007 | Accounting & Finance | 348 |
| 112 | Nishitani et al. (2021) | Explore if third-party assessments, such as comments and guarantees, help to provide financial accountability in environmental reporting by guaranteeing the accuracy of submitted information. | Voluntary disclosure theory | Analysis (regression analysis) of 174 Japanese companies listed in the Nikkei 500 Index for 9 years, from 2007 to 2015. | Journal of Cleaner Production | 17 |

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| 113 | O'Dwyer (2011) | Improving the knowledge of how assurance practitioners have sought to establish sustainable assurance practise | The study relies on aspects of Power's 1996, 1997, 1999, and 2003 theoretical insights regarding the processes through which new domains are made auditable. | The study used longitudinal case study by conducting 36 in-depth interviews with practitioners in two of the four big accounting firms. | Contemporary Accounting Research | 319 |
| 114 | O'Dwyer and Owen (2007) | Assessing sustainability assurance statements against requirements of standards | None-descriptive study | Content analysis of 29 assurance statements from shortlisted for the 2003 ACCA UK and European Sustainability Reporting Awards scheme | Journal of Corporate Citizenship | 202 |
| 115 | O'Dwyer et al. (2011) | Investigate how assurance providers can legitimise sustainability assurance | Legitimacy theory | Conducting a semi-structured interview with 14 assurance providers from the four big accounting firms, and analysing the assurance statements in SAT from year 2002 to 2006 | Accounting, Organizations and Society | 587 |
| 116 | O'Dwyer and Owen (2005) | The study aims to report in detail about the assurance service in UK and Europe. And evaluate the assurance of sustainability reports against some requirements of standards. | None-descriptive study | The study is critical analysis of assurance statements of short-listed companies of ACCA in The UK and Europe for the year 2002. The totally assurance statements analysed are 41. | The British Accounting Review | 735 |
| 117 | Owen et al. (2000) | Investigating the effectiveness of social audits to enhance accountability and stakeholder participation | Accountability lens | Analysing eighteen interview which conducted with practitioners in 1998. | European Accounting Review | 671 |
| 118 | Park and Brorson (2005) | Investigate sustainability assurance in Sweden market and the reasons behind adopting this service by third-party | None-descriptive study | Interviewed 28 participants from Swedish companies, and assurance providers, and also an analysis of sustainability reports from year 1990 to 2003 | Journal of cleaner production | 274 |
| 119 | Perego (2009) | The study aims to explore the reasons and the outcomes of choosing assurance provider for companies seeking external assurance to their sustainability reports | None-descriptive study | The study used two research method, logistical regression analysis from shortlisted for the 2005 ACCA Sustainability Reporting Award (136 international companies), and content analysis. | International Journal of Management | 231 |

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| 120 | Perego and Kolk (2012) | Investigate how multinational companies use assurance procedures to build and maintain organisational sustainability responsibility. | Resource-based view of the firm and institutional theory | Analysis of sustainability reports for four years (1999, 2002, 2005, and 2008 of 212 firms in the global Fortune 250. | Journal of business ethics | 471 |
| 121 | Peters and Romi (2015) | Explore if sustainability-focused corporate governance measures have an influence on voluntary assurance of company sustainability reports. | None-descriptive study | Analysis of 912 sustainability reports of the USA companies for the period 2002 to 2010. | Auditing: A Journal of Practice & Theory | 298 |
| 122 | Pflugrath et al. (2011) | Examine if financial analysts see any different in credibility of stand-alone CSR reports in terms if this reports assured or not, the assurance providers (accounting or non-accounting). | None-descriptive study | Conducted 3*2 experiment of 106 participants from three countries, USA, Australia, and UK | Auditing: A Journal of Practice & Theory | 393 |
| 123 | Prajogo et al. (2020) | Explores the factors that drive companies to select the assurance providers to assure their report. | Legitimacy and institutional perspectives | The study used survey of 597 companies from Australia and New Zealand registered to ISO 9001 | Journal of Business Ethics | 7 |
| 124 | Prinsloo and Maroun (2020) | Investigates the type of assurance that companies seek to provide to their sustainability and integrated reports and how the quality of combined assurance differs per company. | None-descriptive study | Content analysis of combined assurance service of the largest fifty companies listed in South Africa. | Management and Policy Journal | 9 |
| 125 | Quick and Inwinkl (2020) | Investigate if assurance on sustainability reporting has an influence on banks' attitudes and decisions as capital providers. | None-descriptive study | Experiment 2*2*1 between-subjects design the experiment entailed two treatment variables, assurance provider (accounting firm vs non-accounting assurance provider) and assurance level (reasonable vs limited). In addition, there was one control condition with no corporate social responsibility report assurance. The study examined 69 directors of Germany banks and investigated the impact of CSR assurance on their decision. | Meditari Accountancy Research | 20 |
| 126 | Radhouane et al. (2019) | Examine if giving voluntary external assurance of voluntary environmental information by companies in environmentally sensitive sectors has any market value. | Legitimacy theory | Analysis of 91 companies' sustainability reports (798 firm-year observations) listed on the French SBF 120 index over 9 years, from 2003 to 2011. | Sustainability Accounting, Management and Policy Journal | 29 |

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| 127 | Reverte (2021) | The study investigating if investors in Spain look positively to the third-party assurance of sustainability reporting after the passing of the European Directive 2014/95/UE for the period 2014-2017 for the sample of listed companies | None-descriptive study | Analysing 148 Spanish listed companies that have published their sustainability report in the GRI database for 4 years, from 2014 to 2017 | Sustainable Development | 4 |
| 128 | Rivière-Giordano et al. (2018) | Exploring if different degrees of assurance statements for environmental disclosures have an impact on investment decisions in France, where environmental assurance was optional until 2012 and has subsequently become regulated and mandated. | None-descriptive study | (Experimental study) the authors use an online survey of 108 participants from 93 professionals provided information (the French Association of Financial Analysts) | Sustainability Accounting, Management and Policy Journal | 27 |
| 129 | Romero et al. (2014) | Examines how consumers think about the quality of the assurance statement in sustainability reports. | None-descriptive study | Survey of 253 master level student from USA and Spain | Social Responsibility Journal | 31 |
| 130 | Rossi and Tarquinio (2017) | Examines the assurance statements' content level and see if it's influenced by company factors and the type of practitioner used. | Legitimacy theory | Analysis sustainability assurance statement published by Italian firms listed on the FTSE Italy All-Share Index covering the period of 5 years (2008 to 2012). The authors developed an assurance statement disclosure index (ASDI) constructed on the basis of the standards ISAE 3000 and AA1000AS. | Managerial Auditing Journal | 67 |
| 131 | Ruiz-Barbadillo and Martínez-Ferrero (2020) | The study investigates if having the same practitioner provide audit and sustainability assurance services has an impact on the quality of the assurance provided. | None-descriptive study | The paper used (Regression analysis) to analyse sustainability assurance of 976 from 22 countries from the year 2006 to 2016. | Journal of Cleaner Production | 12 |
| 132 | Sawani et al. (2010) | Examining the sustainability repots and assurance in Malaysia and its developments and the level of understanding of this practice in Malaysia. | None-descriptive study | The study used questionnaire survey and structured interview, 12 mangers were in the sample all the participants were from the listed companies participating in the Malaysian Environmental and Social Reporting Awards 2007 (ACCA-MESRA, 2007) | Social Responsibility Journal | 93 |

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|-----|----------------------------|--|--------------------------|--|--|------|
| 133 | Seguí-Mas et al. (2015) | Investigate sustainability assurance service in the largest 300 cooperatives over the world. | None-descriptive study | Analysis 59 sustainability assurance from the world's 300 largest cooperatives and mutual enterprises from twenty-five countries from 8 sectors. | Annals of Public and Cooperative Economics | 37 |
| 134 | Sellami et al. (2019) | Demonstrate the elements that influence French firms' need for sustainability assurance. | None-descriptive study | Analysis of listed French companies belonging to the SBF250 and CAC ALL TRADBLE indexes for s years from 2010 to 2012. | Journal of Financial Reporting and Accounting | 28 |
| 135 | Sethi et al. (2017) | The study aims to investigate the discrepancies in reporting forms, treatment, and inclusion of numerous contextual components, as well as a lack of comprehensive quality and accuracy measures in the reports' content. | None-descriptive study | Analysing corporate social responsibility reports of 614 international companies listed in multiple global indices for one year only 2012. | Journal of Business Ethics | 122 |
| 136 | Sheldon and Jenkins (2020) | Investigates public views of environmental report credibility based on a company's relative performance and the amount of assurance acquired on environmental operations under the recently clarified and updated attestation criteria in USA. | Neo-institutional theory | Experiment 2*3 of 153 participants from USA between-subjects design in which relative firm environmental performance (positive, negative) and assurance provided (none, limited, reasonable) are manipulated. | Accounting, Auditing & Accountability Journal | 13 |
| 137 | Shen et al. (2017) | Investigates whether corporate social responsibility (CSR) disclosures influence nonprofessional investors' investing decisions in China. | Attribution theory | Experiment 3*2 (no assurance, assurance provided by a professional accountant, or assurance provided by an industry expert) × (positive or negative CSR report) with 229 full-time postgraduate students in China. | International Journal of Auditing | 38 |
| 138 | Sierra et al. (2013) | Explore sustainability assurance among Spanish firms, and examining if there is any relation between assurance providers and auditors of financial statements. | None-descriptive study | Analysis in total 133 sustainability reports published by IBEX-35 companies for sex years from 2005 until 2010. | Corporate Social Responsibility and Environmental Management | 201 |
| 139 | Simnett et al. (2009) | Examine the causes for securing sustainability assurance and choice of sustainability assurance provider type. | None-descriptive study | Analysis of 655 sustainability report assurance statements of multinational companies from 31 countries from 2002 to 2004 (3 years). | The accounting review | 1263 |

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|-----|-----------------------------|--|---|--|--|-----|
| 140 | Simoni et al. (2020) | Examine the factors that influence sustainability report (SR) assurance processes. | Stakeholder theory, institutional theory, and signaling theory Legitimacy theory | Analysing (panel regression analysis) sustainability assurance of 417 listed companies that are based in Europe from 2012 to 2016. | Meditari Accountancy Research | 26 |
| 141 | Smith et al. (2011) | Investigates the concept of ‘capture’ and providing a conceptual framework | Theoretical paper, used integrating elements of neo-institutional theory and the arena concept. | Review of the literature to propose a new conceptual framework for studying the dynamics of interactions among the many entities involved in the assurance industry in the United Kingdom. | Journal of Business Ethics | 171 |
| 142 | Srivastava et al. (2013) | Aims to develop a framework for planning, performing, and evaluating of providing assurance on SR | Probability-based theory and Dempster-Shafer theory | Developed a framework for planning, performing, and evaluating of providing assurance on SR | Journal of information systems | 18 |
| 143 | Steinmeier and Stich (2019) | Examining the impact of sustainability assurance on management investment decisions in terms of sustainability investment efficiency. | None-descriptive study | The study followed empirical analyses of 270 international firms from the period of 2006 to 2015 from KPMG survey of Corporate Responsibility Reporting. | European Accounting Review | 30 |
| 144 | Venter et al. (2021) | The study aims to provide an overview of the existing literature of the assurance service of the external reports. | Literature review | A literature review of 121 academic articles from year 2009 to 2020 | Journal of International Financial Management & Accounting | 11 |
| 145 | Wallage (2000) | The study aims to discuss the new service “sustainability assurance” for financial auditors. | None-descriptive study | The study is descriptive analysis of Shell Report 2000 | Auditing: A Journal of Practice & Theory | 216 |
| 146 | Wong and Millington (2014) | Investigating the UK stakeholder demand for and perceptions of corporate social disclosure assurance, and stakeholder preferences for assurance | None-descriptive study | A survey by phone of 147 entities from three different stakeholder groups, institutional investors, procurers, and third-sector organisations | Accounting, Auditing & Accountability Journal | 120 |
| 147 | Wong et al. (2016) | Examine the factors that impact a company's choice of assurance provider when it comes to sustainability assurance. | Neo-institutional theory | Regression analysis of the top 100 firm listed in UK and USA for two years, 2010 and 2011. | Pacific Accounting Review | 17 |
| 148 | Zhou et al. (2016) | Examines the global GHG assurance market in order to identify important potential factors of both the decision to assure and the assurance provider of choice. | Stakeholder theory | The study analysis 2194 Greenhouse gas emission data (among 2194 reports, 955 assured reports) from 971 international companies from CDP database for four years (from 2008 to 2011). | Auditing: A Journal of Practice & Theory | 53 |

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|-----|---------------------|--|------------------------|---|---------------------------------------|-----|
| 149 | Zorio et al. (2013) | Creates an index to assess the quality of sustainability assurance statements in comparison to sustainability standards' criteria. | None-descriptive study | Analysis sustainability reports in listed companies in Spain, 133 sustainability reports (108 out of 133 assured) for the period 2005-2010. | Business strategy and the environment | 249 |
|-----|---------------------|--|------------------------|---|---------------------------------------|-----|

The Assurance of Integrated Reports

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|-----|-----------------------------|---|--|---|--|-----|
| 150 | Akisik and Gal, (2019) | Investigate the relationship between the integrated reports, the external assurance, and the financial performance | Stakeholder theory | The study used regression analysis of integrated reporting and obtained financial data from Compustat North America as well as used data (about IR and IRA) which are available on the GRI website. | Sustainability Accounting, Management and Policy Journal | 19 |
| 151 | Borgato and Marchini (2021) | Providing the assurance providers' view about the IR assurance | None – descriptive study | Ten semi-structured interviews with accounting and non-accounting assurance providers in Italy | Meditari Accountancy Research | 1 |
| 152 | Briem and Wald, (2018) | Exploring why organisations assure their IR by external provider in Germany, and what roles external auditors play in the process of this service | Institutional theory, agency theory, and the diffusion of innovations theory | The study used semi-structured interview with 25 of actors from industry and the accounting profession in Germany. | Accounting, Auditing & Accountability Journal | 65 |
| 153 | Burke and Clark (2016) | Discuss the business case for integrated reporting, as well as the multitude of challenges a firm faces when beginning its integrated reporting journey | None – descriptive study | the study used Unstructured interviews with 19 practitioners presented their experiences in Global Business Ethics Symposium as the demanders and suppliers of IR. | Business Horizons | 170 |
| 154 | Caglio et al. (2020) | Investigate the economic effects that might occur in terms of market value, stock liquidity and analyst prediction accuracy from textual attributes including the assurance of integrated reports by third-party. | None – descriptive study | The study used quantitative approach to analyse the data, the data were collected from the Johannesburg Stock Exchange (JSE), the top 160 listed companies were selected | European Accounting Review | 51 |
| 155 | Goicoechea et al. (2019) | Identifying to what extent assurance of integrated reports is important, audit report preferences, and the difficulties that facing auditors when it comes to ensuring nonfinancial information | None – descriptive study | The study survey 118 assurance providers of integrated reporting and 126 users of integrated reporting in Spain. | Sustainability | 26 |
| 156 | Hoang and Phang (2021) | Examine if the combined assurance can help to retrieve the investors' attention to invest when there is a real risk related to the reliability of the report | Credibility framework and the source credibility theory | The study used three different experiments | European Accounting Review | 14 |

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|-----|-----------------------------|--|---|--|--|-----|
| 157 | Kılıç et al. (2019) | Exploring of the ethical and accountability environment impacts the voluntary assurance need for integrated reports. | Institutional theory | The study used regression analysis of 192 companies worldwide registered in the International Integrated Reporting Council's (IIRC) from 2011 to 2016. | Journal of Applied Accounting Research | 14 |
| 158 | Maroun and Prinsloo 2020 | Provide a clear sight of factors that enhance organisations to adopt combined assurance | Theoretical paper | Examine the integrated reporting of the 50 firms in South Africa from 2013 to 2018. | Business Strategy and the Environment | 7 |
| 159 | Maroun, W (2017) | The study aims to build a preliminary framework for the assurance of integrated reports and three possible assurance models for integrated reports | Interpretive analysis | Interview 20 integrated reporting preparers from 14 listed companies in South Africa, and 20 auditors from six different audit firms, all from South Africa. | The British Accounting Review | 130 |
| 160 | Maroun, W (2018) | Present a new approach to assurance and to identify the primary elements of an "interpretive assurance model." | None – descriptive study | Interviews 17 who are preparing integrated reporting and 20 auditors all from South Africa. | Accounting, Auditing & Accountability Journal | 74 |
| 161 | Maroun, W. (2019a) | Examining if the external assurance promoting the quality of integrated reports | Theoretical paper | Investigate the integrated reporting of the top 42 companies in South Africa from 2010 to 2016. | Journal of Accounting and Public Policy | 41 |
| 162 | Maroun, W. (2019b) | Investigating behind the reasons that companies provide assurance to some of information in their IR | Framing Theory | Interview 25 auditors and prepares of integrated reporting (13 auditors from the big four accounting firms and 12 prepares). | Accounting, Auditing & Accountability Journal | 20 |
| 163 | Reimsbach et al. (2018) | Exploring how the different report formats interconnect with the assurance of sustainability reports | Cognitive cost theory and the proximity compatibility principle | The study used experiment 2 × 2 between-subjects design in which external assurance of sustainability information (Yes , No), and sustainability information integrated in one report (Yes , No). | European Accounting Review | 179 |
| 164 | Richard and Odendaal (2020) | Investigate the diffusion of the IR assurance, the assurance providers, the level of assurance, and the standards used in this service | legitimacy theory, the underlying theory | The study used a content analysis of integrated reporting assurance of the top 40 companies in South Africa plus another 7 companies from South Africa which joined to the IIRC pilot programme. The paper also used two case study with semi-structured interview (interviewed 5 people from the first case study) and (4 from the second case study) who are working in the management of the company or responsible for compiling the IR. | International Journal of Disclosure and Governance | 1 |

| | | | | | | |
|-----|------------------------------|--|--|--|--|-----|
| 165 | Rodrigues and Morais, (2021) | Reinforce the diffusion of integrated report, and integrated report assurance in universities curriculum | The source credibility theory | The study used two methods: first theoretical analysis of published studies on the assurance of integrated reports. The second establishes the framework for the challenge learning method's presentation. | Sustainability | 0 |
| 166 | Simnett and Huggins (2015) | Identify the future opportunities of the assurance of IR | None – descriptive study | Archival analysis of the responses to the International Integrated Reporting Council's public consultation phases | Sustainability Accounting, Management and Policy Journal | 281 |
| 167 | Uyar et al. (2021) | Explore if cultural values from different nations impact the decision-making in order to ensure integrated reporting | A combined of four theories neo-institutional, stakeholder, social contract and contingency theories | Regression analysis of 192 companies that registered in the database of the IIRC from 2011 to 2016. | Management Decision | 0 |
| 168 | Velte and Stawinoga (2017) | Review 44 articles on integrated reporting, all of them have been published after the International Integrated Reporting Council adopted the integrated reporting framework. | None – descriptive study | Review 44 articles on integrated reporting, all of them have been published after the International Integrated Reporting Council adopted the integrated reporting framework. | Journal of Management Control | 247 |
| 169 | Wang et al. 2020 | Explore the importance of corporate governance in describing the difference in the quality of IR, and mechanisms of the enhancement of the quality of IR | Multi-theoretical framework | Examine the quality of integrated reporting of the 100 listed companies in South Africa from 2012 to 2015. | European Accounting Review | 51 |
| 170 | Zhou et al. (2019) | Investigate if combined assurance can be a new method of enhancing credibility of integrated reports. | None-descriptive study | The study used a regression analysis to analyse the Integrated reporting of the top 100 listed companies in South Africa. | Auditing: A Journal of Practice & Theory | 31 |

Appendix (2)

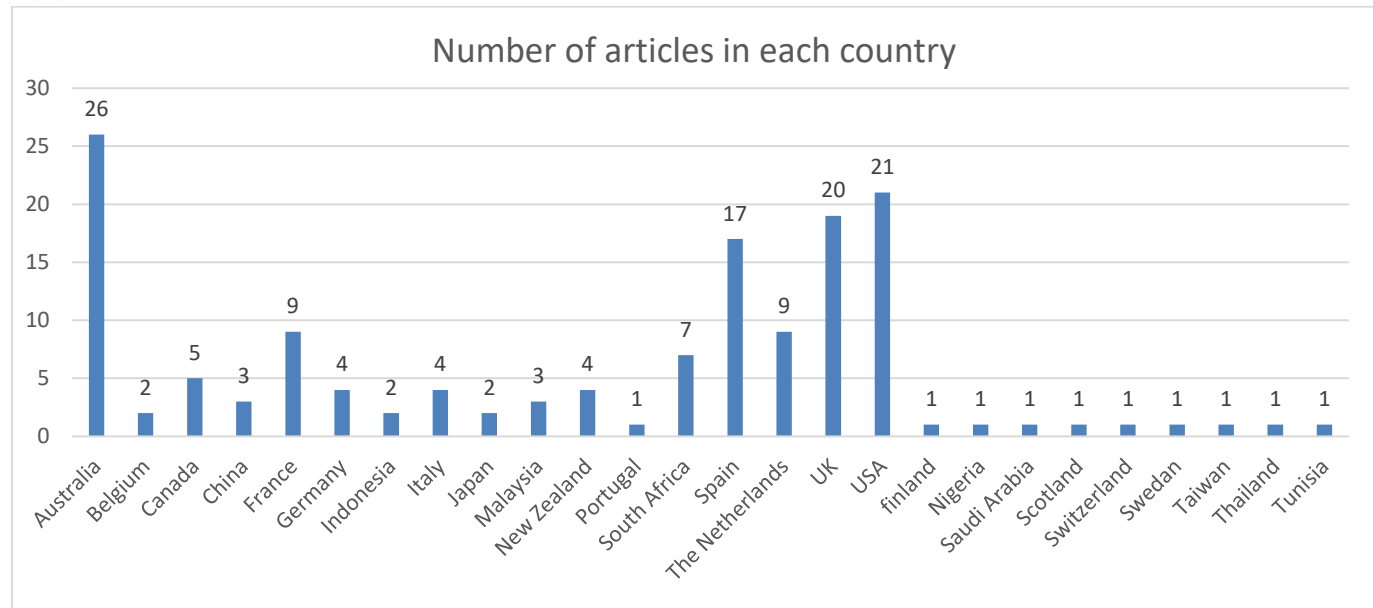


Figure (1): Number of articles published in each country based on the first author's location.

Appendix (3)

Table (2)

Summarising list of researchers and country of origin of each researcher based of their university affiliation and number of articles published of each researcher.

| Serial no. | Author's names | Country of origin | Publication per researcher |
|---------------------------------|----------------------|-------------------|----------------------------|
| Sustainability Assurance | | | |
| 1 | Green, W | Australia | 8 |
| 2 | García-Sánchez, I. M | Spain | 7 |
| 3 | Simnett, R | Australia | 7 |
| 4 | Owen, D. L | UK | 6 |
| 5 | Martínez-Ferrero, J | Spain | 6 |
| 6 | O'Dwyer, B | The Netherlands | 5 |
| 7 | Gillet-Monjarret | France | 4 |
| 8 | Ackers, B | South Africa | 4 |
| 9 | Boiral, O | Canada | 4 |
| 10 | Michelon, G | UK | 4 |
| 11 | Fernandez-Feijoo, B | Spain | 4 |
| 12 | Romero, S | USA | 4 |
| 13 | Ruiz, S | Spain | 4 |
| 14 | Mock, T. J | USA | 4 |
| 15 | Zhou, S | Australia | 3 |
| 16 | Datt, R | Australia | 3 |
| 17 | Luo, L | Australia | 3 |
| 18 | Tang, Q | Australia | 3 |
| 19 | Darusi, F | Malaysia | 3 |
| 20 | Sawani, Y | Malaysia | 3 |
| 21 | Zain, M | Malaysia | 3 |
| 22 | Channuntapipat, C | UK | 3 |
| 23 | Perego, P | The Netherlands | 3 |

| | | | |
|----|------------------------|-----------------|---|
| 24 | Heras-Saizarbitoria, I | Spain | 3 |
| 25 | Farooq, M. B | New Zealand | 3 |
| 26 | De Villiers, C | New Zealand | 3 |
| 27 | Ballou, B | USA | 3 |
| 28 | Heitger, D | USA | 3 |
| 29 | Grenier, J. H | USA | 3 |
| 30 | Patten, D. M | USA | 3 |
| 31 | Roebuck, P | Australia | 3 |
| 32 | Deegan, C | Australia | 2 |
| 33 | Cooper, B. J | Australia | 2 |
| 34 | Shelly, M | Australia | 2 |
| 35 | Gray, R | Scotland | 2 |
| 36 | Edgley, C | UK | 2 |
| 37 | Swift, T | The Netherlands | 2 |
| 38 | Jangu | Malaysia | 2 |
| 39 | Brotherton, M. | Canada | 2 |
| 40 | Samsonova-Taddei, A | UK | 2 |
| 41 | Turley, S | UK | 2 |
| 42 | Rossi, A | Italy | 2 |
| 43 | Jones, M. J | UK | 2 |
| 44 | Solomon, J. F | UK | 2 |
| 45 | Rivière-Giordano | France | 2 |
| 46 | Elamer, A. A | Egypt | 2 |
| 47 | Manetti, G | Italy | 2 |
| 48 | Romi, A. M | USA | 2 |
| 49 | Cho, C. H | France | 2 |
| 50 | Bollas-Araya, H. M | Spain | 2 |
| 51 | Polo-Garrido, F | Spain | 2 |
| 52 | Seguí-Mas, E | Spain | 2 |
| 53 | Taylor, S | Australia | 2 |
| 54 | Kolk, A | The Netherlands | 2 |
| 55 | Casey, R. J | USA | 2 |
| 56 | Srivastava, R. P | USA | 2 |
| 57 | Rao, S. S | USA | 2 |
| 58 | Zorio, A | Spain | 2 |
| 59 | García-Benau, M. A | Spain | 2 |
| 60 | Sierra, L | Spain | 2 |
| 61 | Haider, M. B | Japan | 2 |
| 62 | Nishitani, K | Japan | 2 |
| 63 | Hasan, M | Australia | 2 |
| 64 | Vanstraelen, A | The Netherlands | 2 |
| 65 | Gillet, C. | France | 1 |
| 66 | Adams | Australia | 1 |
| 67 | Evans | Australia | 1 |
| 68 | Cooper, S. M | UK | 1 |
| 69 | Darnall, N | USA | 1 |
| 70 | Seol, I | USA | 1 |
| 71 | Sarkis, J | USA | 1 |
| 72 | Unerman, J | UK | 1 |
| 73 | Junior, R. M | Australia | 1 |
| 74 | Best, P. J | Australia | 1 |
| 75 | Cotter, J | Australia | 1 |
| 76 | Jones, M. J | UK | 1 |
| 77 | Atkins, J | UK | 1 |
| 78 | Dando, N | The Netherlands | 1 |
| 79 | Smith, J | UK | 1 |
| 80 | Haniffa, R | UK | 1 |
| 81 | Fairbrass J | UK | 1 |

| | | | |
|-----|-------------------|-----------------|---|
| 82 | Mallik, G | Australia | 1 |
| 83 | Wallage, P | The Netherlands | 1 |
| 84 | Beets, S. D | USA | 1 |
| 85 | Souther, C. C | USA | 1 |
| 86 | Morimoto, R | France | 1 |
| 87 | Ash, J | France | 1 |
| 88 | Hope, C | France | 1 |
| 89 | Hickman, L. E | USA | 1 |
| 90 | Cote, J | USA | 1 |
| 91 | Dillard, J | UK | 1 |
| 92 | De Moor, P | Belgium | 1 |
| 93 | De Beelde, I | Belgium | 1 |
| 94 | Bernard, J | Canada | 1 |
| 95 | Park, J | Sweden | 1 |
| 96 | Brorson, T | Sweden | 1 |
| 97 | Ball, A | UK | 1 |
| 98 | Decaux, L | Belgium | 1 |
| 99 | Sarens, G | Belgium | 1 |
| 100 | Larrinaga, C | Spain | 1 |
| 101 | Luque-Vilchez, M | Spain | 1 |
| 102 | Núñez-Nickel, M | Spain | 1 |
| 103 | Eccles, N. S | South Africa | 1 |
| 104 | Prajogo, D | Australia | 1 |
| 105 | Castka, P | New Zealand | 1 |
| 106 | Searcy, C | Canada | 1 |
| 107 | Canning, M | Ireland | 1 |
| 108 | Georgakopoulos, G | The Netherlands | 1 |
| 109 | Venter, E. R | South Africa | 1 |
| 110 | van Eck, L | South Africa | 1 |
| 111 | Belal, A. R | UK | 1 |
| 112 | Hazaea, S. A | China | 1 |
| 113 | Zhu, J | China | 1 |
| 114 | Khatib, S. F | Malaysia | 1 |
| 115 | Bazhair, A. H | Saudi Arabia | 1 |
| 116 | Flasher, R | USA | 1 |
| 117 | Luchs, C. K | USA | 1 |
| 118 | Souza, J. L | USA | 1 |
| 119 | Marx, B | South Africa | 1 |
| 120 | van Dyk, V | South Africa | 1 |
| 121 | Gendron, Y | Canada | 1 |
| 122 | Humphrey, C | UK | 1 |
| 123 | Bowerman, M | UK | 1 |
| 124 | Landes, C | USA | 1 |
| 125 | Toccafondi, S | Italy | 1 |
| 126 | Clarkson, P | Australia | 1 |
| 127 | Li, Y | Canada | 1 |
| 128 | Richardson, G | Canada | 1 |
| 129 | Tsang, A | Canada | 1 |
| 130 | Al-Shaer, H | UK | 1 |
| 131 | Zaman, M | UK | 1 |
| 132 | Liao, L | China | 1 |
| 133 | Lin, T. P | China | 1 |
| 134 | Zhang, Y | Australia | 1 |
| 135 | Wong, R | UK | 1 |
| 136 | Millington, A | UK | 1 |
| 137 | Chen, P. C | USA | 1 |
| 138 | Roberts, R. W | USA | 1 |
| 139 | Pilonato, S | Italy | 1 |

| | | | |
|-----|-------------------------|-----------------|---|
| 140 | Ricceri, F | Italy | 1 |
| 141 | Braam, G. J | The Netherlands | 1 |
| 142 | de Weerd, L. U | The Netherlands | 1 |
| 143 | Hauck, M | The Netherlands | 1 |
| 144 | Huijbregts, M. A | The Netherlands | 1 |
| 145 | Wu, J | Australia | 1 |
| 146 | Dutta, P | Finland | 1 |
| 147 | Dilla, W | USA | 1 |
| 148 | Janvrin, D | USA | 1 |
| 149 | Perkins, J | USA | 1 |
| 150 | Raschke, R | USA | 1 |
| 151 | Reverte, C | Spain | 1 |
| 152 | Du, K | USA | 1 |
| 153 | Wu, S. J | Taiwan | 1 |
| 154 | Ferguson, A | Australia | 1 |
| 155 | Pündrich, G | Italy | 1 |
| 156 | Steinmeier, M | Germany | 1 |
| 157 | Stich, M | Germany | 1 |
| 158 | Giordano-Spring, S | Canada | 1 |
| 159 | Simoni, L | Italy | 1 |
| 160 | Bini, L | Italy | 1 |
| 161 | Bellucci, M | Italy | 1 |
| 162 | Ruiz-Barbadillo, E | Spain | 1 |
| 163 | Sethi, S. P | USA | 1 |
| 164 | Martell, T. F | USA | 1 |
| 165 | Demir, M | USA | 1 |
| 166 | Hassan, A | Nigeria | 1 |
| 167 | Hoang, H | Australia | 1 |
| 168 | Li, Q | Australia | 1 |
| 169 | Moroney, R | Australia | 1 |
| 170 | Windsor, C | Australia | 1 |
| 171 | Aw, Y. T | Australia | 1 |
| 172 | Harymawan, I | Indonesia | 1 |
| 173 | Nasih, M | Indonesia | 1 |
| 174 | Salsabilla, A | Indonesia | 1 |
| 175 | Putra, F. K. G | Indonesia | 1 |
| 176 | Branco, M. C | Portugal | 1 |
| 177 | Delgado, C | Portugal | 1 |
| 178 | Gomes, S. F | Portugal | 1 |
| 179 | Eugénio, T. C. P | Portugal | 1 |
| 180 | Kend, M | Australia | 1 |
| 181 | Pflugrath, G | Australia | 1 |
| 182 | Baboukardos, D | UK | 1 |
| 183 | Mangena, M | UK | 1 |
| 184 | Ishola, A | UK | 1 |
| 185 | Cuadrado-Ballesteros, B | Spain | 1 |
| 186 | Chen, Y. L | Taiwan | 1 |
| 187 | Cheng, H. Y | Taiwan | 1 |
| 188 | Jones, P | UK | 1 |
| 189 | Hillier, D | UK | 1 |
| 190 | Comfort, D | UK | 1 |
| 191 | Wong, J | New Zealand | 1 |
| 192 | Wong, N | New Zealand | 1 |
| 193 | Li, W. Y | New Zealand | 1 |
| 194 | Chen, L | New Zealand | 1 |
| 195 | Peters, G. F | USA | 1 |
| 196 | Fuhrmann, S | Germany | 1 |
| 197 | Ott, C | Germany | 1 |

| | | | |
|-----|---------------------|--------------|---|
| 198 | Looks, E | Germany | 1 |
| 199 | Guenther, T. W | Germany | 1 |
| 200 | Herda, D. N | USA | 1 |
| 201 | Taylor, M. E | USA | 1 |
| 202 | Winterbotham, G | USA | 1 |
| 203 | Ekasingh, E | Thailand | 1 |
| 204 | Gomez-Miranda, M. E | Spain | 1 |
| 205 | David, F | Portugal | 1 |
| 206 | Rodríguez-Ariza, L | Spain | 1 |
| 207 | Shen, H | China | 1 |
| 208 | Wu, H | Australia | 1 |
| 209 | Chand, P | Australia | 1 |
| 210 | Sheldon, M. D | USA | 1 |
| 211 | Jenkins, J. G | USA | 1 |
| 212 | Ruiz-Barbadillo, E | Spain | 1 |
| 213 | Brown-Liburd, H | USA | 1 |
| 214 | Zamora, V. L | USA | 1 |
| 215 | Hummel, K | Switzerland | 1 |
| 216 | Schlick, C | Germany | 1 |
| 217 | Fifka, M | Germany | 1 |
| 218 | Coram, P. J | Australia | 1 |
| 219 | Monroe, G. S | Australia | 1 |
| 220 | Woodliff, D. R | Australia | 1 |
| 221 | Hassan, A | UK | 1 |
| 222 | Fletcher, M | UK | 1 |
| 223 | Sobhan, N | UK | 1 |
| 224 | Aibar-Guzmán, B | Spain | 1 |
| 225 | Aibar-Guzmán, C | Spain | 1 |
| 226 | Tarquinio, L | Italy | 1 |
| 227 | Gürtürk, A | Germany | 1 |
| 228 | Hahn, R | Germany | 1 |
| 229 | Sellami, Y. M | Tunisia | 1 |
| 230 | Hlima, N. D. B | Tunisia | 1 |
| 231 | Jarboui, A | Tunisia | 1 |
| 232 | Alsahali, K. F | Saudi Arabia | 1 |
| 233 | Malagueño, R | UK | 1 |
| 234 | Strohm, C | USA | 1 |
| 235 | Swartz, K. M | USA | 1 |
| 236 | Prinsloo, A | South Africa | 1 |
| 237 | Maroun, W | South Africa | 1 |
| 238 | Bramanti, G. W | Indonesia | 1 |
| 239 | Nareswari, N | Indonesia | 1 |
| 240 | Gunawan, M. F | Indonesia | 1 |
| 241 | Kunaifi, A | Indonesia | 1 |
| 242 | Negoro, N. P | Indonesia | 1 |
| 243 | Wibawa, B. M | Indonesia | 1 |
| 244 | Kokubu, K | Japan | 1 |
| 245 | Hodge, K | Australia | 1 |
| 246 | Subramaniam, N | Australia | 1 |
| 247 | Stewart, J | Australia | 1 |
| 248 | Quick, R | Germany | 1 |
| 249 | Inwinkl, P | Austria | 1 |
| 250 | Chua, W. F | Australia | 1 |
| 251 | Becatti, L | Italy | 1 |
| 252 | Kim, S | Australia | 1 |
| 253 | Johnstone, K. M | USA | 1 |
| 254 | Maso, L. D | France | 1 |
| 255 | Lobo, G. J | USA | 1 |

| | | | |
|--|--------------------|-----------------|---|
| 256 | Mazzi, F | Italy | 1 |
| 257 | Paugam, L | France | 1 |
| 258 | Gal, G | USA | 1 |
| 259 | Akisik, O | USA | 1 |
| 260 | Birkey, R. N | USA | 1 |
| 261 | Sankara, J | USA | 1 |
| 262 | Simpson, S. N. Y | Ghana | 1 |
| 263 | Aboagye-Otchere, F | Ghana | 1 |
| 264 | Lovi, R | Ghana | 1 |
| 265 | Radhouane, I | France | 1 |
| 266 | Nekhili, M | France | 1 |
| 267 | Nagati, H | France | 1 |
| 268 | Paché, G | France | 1 |
| 269 | Maijoor, S | The Netherlands | 1 |
| 270 | Cheng, M. M | Australia | 1 |
| 271 | Ko, J. C. W | Australia | 1 |
| Assurance of Integrated Reports | | | |
| 1 | Maroun, W | South Africa | 5 |
| 2 | Kılıç, M | Turkey | 2 |
| 3 | Uyar, A | France | 2 |
| 4 | Kuzey, C | USA | 2 |
| 5 | Borgato, B. | Italy | 1 |
| 6 | Marchini, P. L | Italy | 1 |
| 7 | Prinsloo, A | South Africa | 1 |
| 8 | Hoang, H | Australia | 1 |
| 9 | Phang, S. Y | Australia | 1 |
| 10 | Rodrigues, M. A. B | Portugal | 1 |
| 11 | Morais, A. I | Portugal | 1 |
| 12 | Briem, C. R | Germany | 1 |
| 13 | Wald, A | Norway | 1 |
| 14 | Caglio, A | Italy | 1 |
| 15 | Melloni, G | Switzerland | 1 |
| 16 | Perego, P | Italy | 1 |
| 17 | Simnett, R | Australia | 1 |
| 18 | Huggins, A. L | Australia | 1 |
| 19 | Goicoechea, E | Spain | 1 |
| 20 | Gómez-Bezares, F | Spain | 1 |
| 21 | Ugarte, J. V | Spain | 1 |
| 22 | Richard, G | South Africa | 1 |
| 23 | Odendaal, E | South Africa | 1 |
| 24 | Velte, P | Germany | 1 |
| 25 | Stawinoga, M | Germany | 1 |
| 26 | Akisik, O | USA | 1 |
| 27 | Gal, G | USA | 1 |
| 28 | Burke, J. J | USA | 1 |
| 29 | Clark, C. E | USA | 1 |

Appendix (4)

Table (3)

The journals and the number of papers each journal published in sustainability assurance

| No. | Journal name | Number of articles |
|-----|--|--------------------|
| 1 | Journal of Business Ethics B&M | 15 |
| 2 | Auditing: A Journal of Practice & Theory | 13 |
| 3 | Accounting, Auditing & Accountability Journal | 10 |
| 4 | Sustainability Accounting, Management and Policy Journal | 9 |
| 5 | Business strategy and the environment | 7 |
| 6 | Managerial Auditing Journal | 6 |
| 7 | International Journal of Auditing | 5 |
| 8 | Journal of cleaner production B&M | 5 |
| 9 | Meditari Accountancy Research | 4 |
| 10 | Social Responsibility Journal | 4 |
| 11 | Accounting, Organizations and Society | 3 |
| 12 | Australian Accounting Review | 3 |
| 13 | Contemporary Accounting Research | 3 |
| 14 | Corporate Social Responsibility and Environmental Management | 3 |
| 15 | European Accounting Review | 3 |
| 16 | The British Accounting Review | 3 |
| 17 | Accounting and Business Research | 2 |
| 18 | Accounting forum | 2 |
| 19 | Accounting Horizons | 2 |
| 20 | Accounting Research Journal | 2 |
| 21 | International Business Review | 2 |
| 22 | International Journal of Disclosure and Governance | 2 |
| 23 | Journal of Accounting & Organizational Change | 2 |
| 24 | Journal of Accounting and Public Policy | 2 |
| 25 | Journal of Applied Accounting Research | 2 |
| 26 | Journal of corporate citizenship | 2 |
| 27 | Journal of International Financial Management & Accounting | 2 |
| 28 | Pacific Accounting Review | 2 |
| 29 | Accounting & Finance | 1 |
| 30 | Accounting Auditing Control | 1 |
| 31 | Accounting in Europe | 1 |
| 32 | Annals of Public and Cooperative Economics | 1 |
| 33 | Behavioral Research in Accounting | 1 |
| 34 | Business and Finance Journal | 1 |
| 35 | Business Ethics: A European Review | 1 |
| 36 | Critical perspectives on accounting | 1 |
| 37 | Entrepreneurship and Sustainability Issues | 1 |
| 38 | Environmental Accountability Journal | 1 |
| 39 | Environmental Management | 1 |
| 40 | Environmental Science and Pollution Research | 1 |
| 41 | Journal of Accountancy | 1 |
| 42 | Journal of Energy Technologies and Policy | 1 |
| 43 | Journal of Financial Reporting and Accounting | 1 |
| 44 | Journal of information systems | 1 |
| 45 | Journal of International Accounting Research | 1 |
| 46 | Management and Policy Journal | 1 |
| 47 | Management Decision | 1 |
| 48 | Research in Accounting Regulation | 1 |
| 49 | Research Journal of the School of Accounting Sciences | 1 |
| 50 | Sustainability | 1 |
| 51 | Sustainable Development | 1 |
| 52 | The accounting review | 1 |

Appendix (5)

Table (4)

| No. | Journal name | Number of articles |
|-----|--|--------------------|
| 1 | European Accounting Review (publisher?) | 4 |
| 2 | Accounting, Auditing & Accountability Journal | 3 |
| 3 | Sustainability | 2 |
| 4 | Sustainability Accounting, Management and Policy Journal | 2 |
| 5 | Meditari Accountancy Research (Emerald) | 1 |
| 6 | Journal of Accounting and Public Policy | 1 |
| 7 | Business Strategy and the Environment | 1 |
| 8 | International Journal of Disclosure and Governance | 1 |
| 9 | Corporate Social Responsibility and Environmental Management | 1 |
| 10 | Journal of Management Control | 1 |
| 11 | Business Horizons | 1 |
| 12 | Journal of Applied Accounting Research | 1 |
| 13 | Management Decision | 1 |
| 14 | The British Accounting Review | 1 |

The journals and the number of papers each journal published in the assurance of integrated reports

Appendix (6)

Table (5)

| Sustainability assurance | Assurance of integrated reports |
|---|--|
| Benefits of SA; enhances investors perception of SR credibility | The importance of IR assurance in; enhancing the quality of the information. |
| Type of assurance practitioners | The reasons drive organisations to assure their integrated reporting. |
| Level of assurance | The barriers that assurance providers are facing in the process of integrated reporting assurance |
| Causes of Choosing Assurance Providers | The type of assurance providers in the market |
| Managerial and professional capture | The spread of IR assurance among countries |
| The need of standards and regulation | Teaching the IR assurance service in universities |
| Factors impact the quality of SA | The roles that managers play to enhance the quality of integrated reporting assurance |
| Legitimacy and sustainability assurance | The relationship between the integrated reports, the external assurance, and the financial performance |
| Assurance service and accountability enhancement | The ethical and accountability environment and its impacts on IR assurance |
| The relationship between the board characteristic and the decision to provide assurance | How integrated reports assurance is important to users |

| | |
|---|--|
| Combined assurance | How assurance of integrated reports can enhance confidence to investors |
| The impact of media of the decision to provide assurance | The appropriate standards of integrated report assurance from different perspectives |
| Factors drive organisations to assure their sustainability reports. | A call of establishing a new standard or improving the existing one |
| Factors impact organisations to choose the type of assurance provider | |
| Benefits of SA; improves quality of SR | |
| Assurance standards used | |
| Other roles that sustainability reporting assurance plays | |
| The ethical issues of sustainability assurance | |
| Assurance providers' independence | |
| Value added by assurance service | |
| Stakeholders' engagement in the assurance process | |
| Professionalism and professionalization of assurance providers | |
| The competition between accounting and non-accounting providers | |
| Information asymmetry and sustainability assurance | |
| Supply and demand of assurance service | |
| Assurance service and the market value | |
| Assurance and enhance credibility | |

List of the themes which has been covered in the existing literature related to the sustainability assurance and the assurance of integrated reports.

Appendix (7)

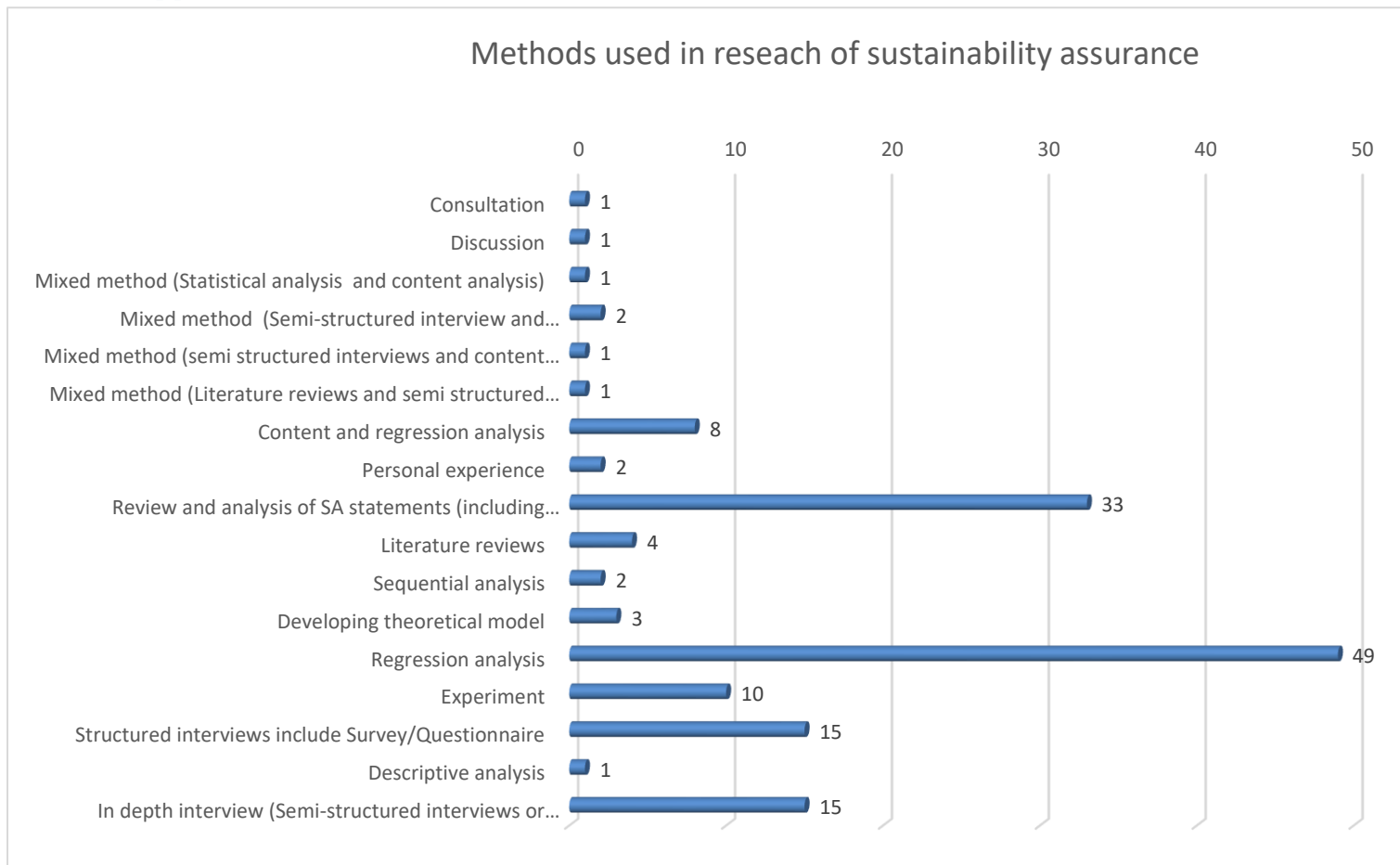


Figure 2:
Methods used in Research of Sustainability Assurance

Appendix (8)

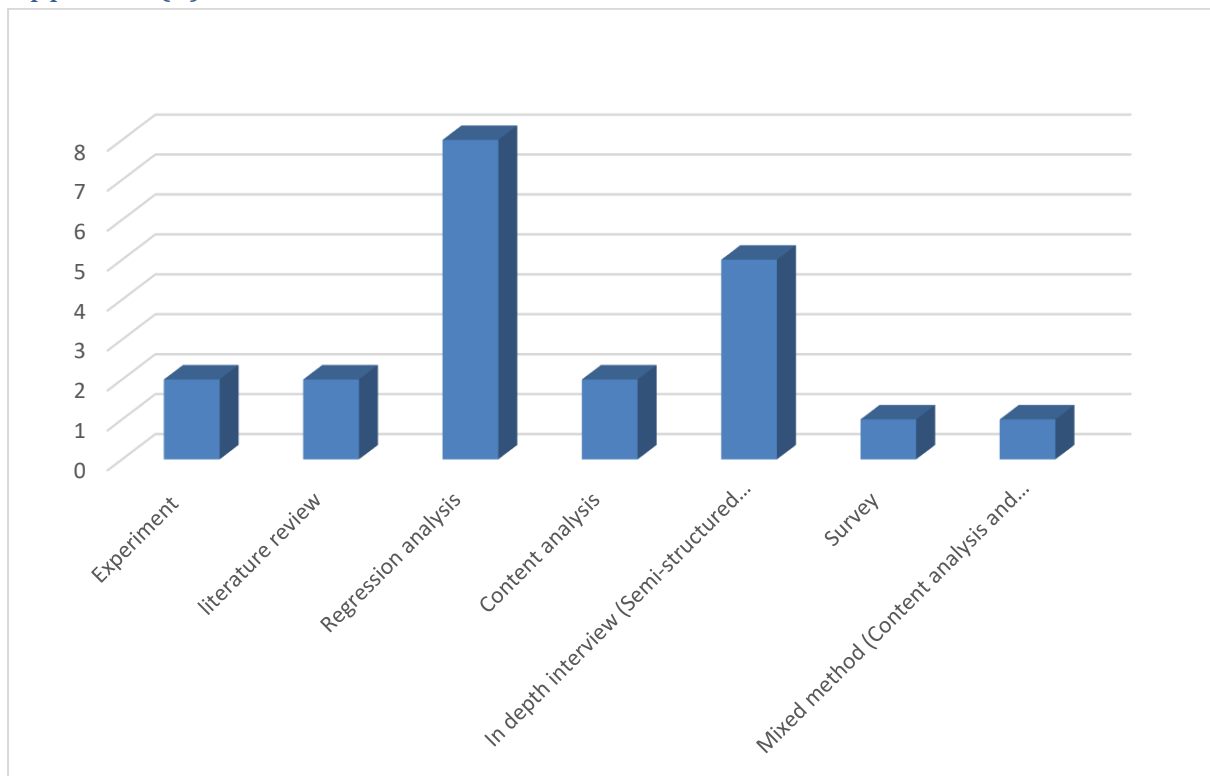


Figure 3
Methods used in published articles in the assurance of integrated reporting

Appendix (9)

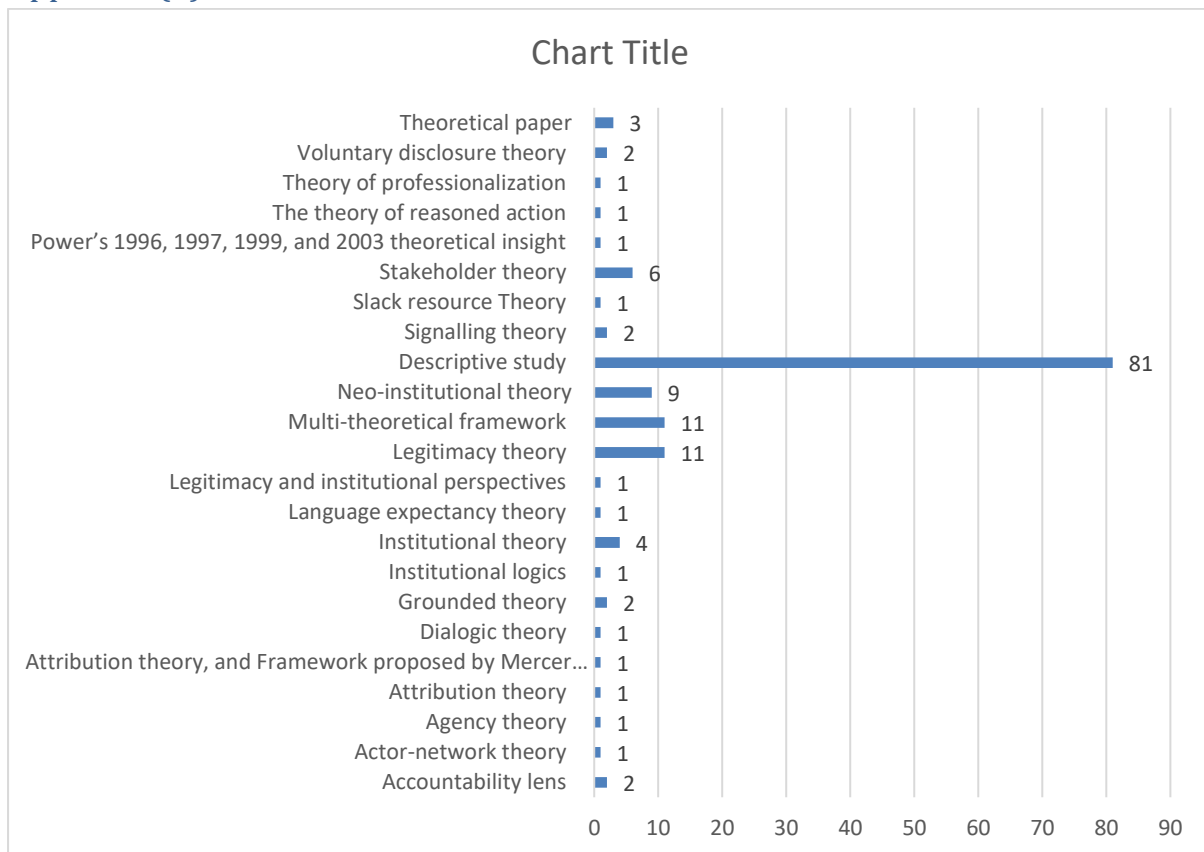


Figure 4.
Theoretical framework used in sustainability assurance research

Appendix 10

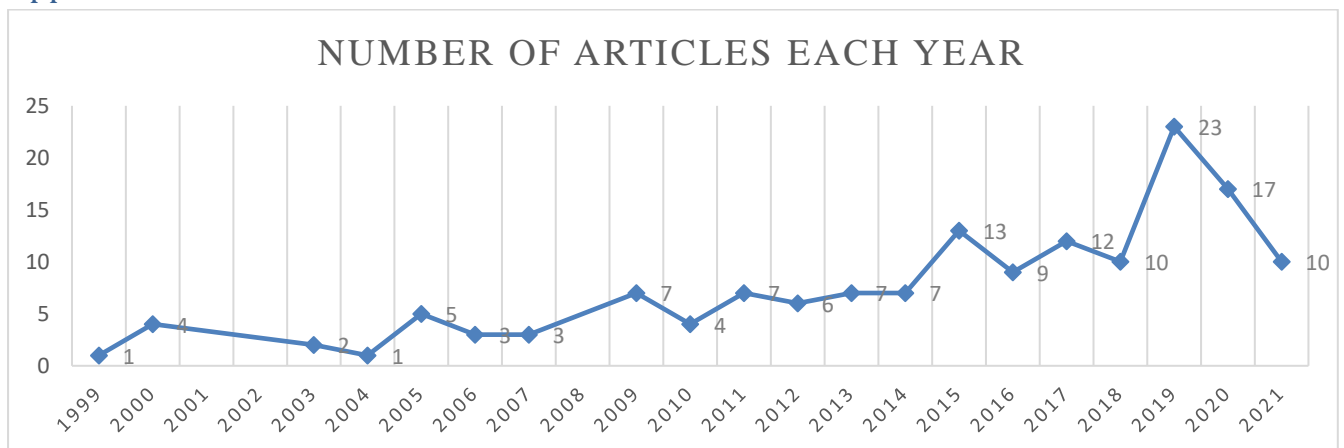


Figure 1:
Number of articles published every year from 1999 to 2021.