

# THE QUALITY OF CORPORATE REPORTING: THE UNITED NATIONS SUSTAINABLE DEVELOPMENT GOALS

Moataz Elmassri<sup>\*</sup>, Aisha Yusuf<sup>\*\*</sup>, Aya Khalf Allah<sup>\*\*</sup>, Maryam Al Shamsi<sup>\*\*</sup>, Rizvana Kaniyamparambil<sup>\*\*</sup>, Shauq Majdi Al Ahbabi<sup>\*\*</sup>

<sup>\*</sup> Corresponding author, Accounting and Finance Department, College of Business and Economics, United Arab of Emirates University, Al Ain, the UAE

Contact details: Accounting and Finance Department, College of Business and Economics, United Arab of Emirates University, P.O. Box 15551, Al Ain, UAE

<sup>\*\*</sup> Accounting and Finance Department, College of Business and Economics, United Arab of Emirates University, Al Ain, the UAE



## Abstract

**How to cite this paper:** Elmassri, M., Yusuf, A., Allah, A. K., Al Shamsi, M., Kaniyamparambil, R., & Al Ahbabi, S. M. (2022). The quality of corporate reporting: The United Nations sustainable development goals. *Corporate Ownership & Control*, 19(3), 158–167.  
<https://doi.org/10.22495/cocv19i3art12>

Copyright © 2022 The Authors

This work is licensed under a Creative Commons Attribution 4.0 International License (CC BY 4.0).  
<https://creativecommons.org/licenses/by/4.0/>

**ISSN Online:** 1810-3057

**ISSN Print:** 1727-9232

**Received:** 06.03.2022

**Accepted:** 13.05.2022

**JEL Classification:** D70, D91, G11, G32, M41

**DOI:** 10.22495/cocv19i3art12

The current study examines the attributes of the sustainability reports produced by public listed companies in the United Arab Emirates (UAE). This is achieved through the adoption of the legitimacy theory (LT) perspective to determine how the reports represent strategic development goals. Global Reporting Initiative (GRI Standards) disclosure standards have been used as a benchmark to assess the quality of UAE companies' sustainable report in respect of Sustainable Development Goal 11 (SDG 11). We adopt Tsalis, Malamateniou, Koulouriotis, and Nikolaou (2020) methodology in scoring the disclosure quality of SGD 11. 130 sustainable reports were analyzed, it was found that there is a poor overall quality of corporate sustainability reports, not least in respect of SDG 11. There were no major changes to SDG 11, with managers tending to function symbolically in terms of their roles in the level and quality of SDG 11-related disclosures. Thus, the UAE corporate reporting is not significantly influenced by the UAE vision 2030 Agenda (United Nations [UN], 2015).

**Keywords:** Sustainability Reports, Sustainable Development Goals, Legitimacy Theory, Quality of Corporate Reporting, United Arab of Emirates

**Authors' individual contribution:** Conceptualisation — M.E. and A.Y.; Methodology — M.A.S. and R.K.; Formal Analysis — M.A.S., A.K.A., and S.M.A.A.; Resources — M.A.S., A.K.A., and S.M.A.A.; Writing — Original Draft — M.E., A.Y., A.K.A., M.A.S., R.K., and S.M.A.A.; Writing — Review & Editing — M.E.

**Declaration of conflicting interests:** The Authors declare that there is no conflict of interest.

**Acknowledgements:** The Authors are grateful for financial support from the United Arab of Emirates University (UAEU), Grant Code: G00003792.

## 1. INTRODUCTION

In the Brundtland Report published by the United Nations (UN), sustainable development is defined as development that addresses the present-day needs without jeopardizing the ability of future generations to meet their needs (World Commission

on Environment and Development [WCED], 1987). Since then, there has been significant and increasing debate surrounding sustainable development and corporate behaviors. Many researchers and professional bodies are now calling for integrated approaches to reporting and new corporate tools that can help them to create sustainable business

models (Geissdoerfer, Morioka, De Carvalho, & Evans, 2018).

The Sustainable Development Goals (SDGs) document was published by the United Nations in 2015 to promote a more sustainable world. This document contains guidelines that can be used by companies to fulfill their sustainability agendas and to enhance corporate sustainability reporting (Williams, Whiteman, & Parker, 2019). There are 17 SDGs put forward by the UN with 169 associated targets (United Nations [UN], 2015). The SDGs highlight some ways in which sustainable development can be achieved without exhausting environmental resources (Halisçelik & Soytaş, 2019). These goals include improving health and wellbeing, reducing poverty, maintaining gender equality, and improving sanitation and access to clean water. SDGs thus compliment the triple-bottom-line of corporate sustainability (Dalampira & Nastis, 2020). In essence, the SDGs complement reporting guidelines (such as the well-renowned Global Reporting Initiative (GRI)) rather than substituting them (ElAlfy, Palaschuk, El-Bassiouny, Wilson, & Weber, 2020).

GRI is one of the most accepted and adopted reporting guidelines, which is an independent international institution that has had extensive efforts since the 1990s to institutionalize sustainability reporting (ElAlfy et al., 2020; Elrazaz, Elmassri, & Ahmed, 2021). GRI provides an inclusive corporate reporting guideline that helps various profit and non-profit organizations to understand and communicate their impacts on global sustainability issues (Global Reporting Initiative [GRI], 2020). The GRI has a major contribution in the field of corporate reporting guidelines through four generations of reporting guidelines (G1, G2, G3 and G4) and finally, the Standards in 2017. In terms of sustainability reporting, in 2014, the GRI developed the Global Sustainability Standards Board (GSSB), which is responsible for the development of the reporting guidelines (Sethi, Martell, & Demir, 2017; Elshandidy, Elmassri, & Elsayed, 2021).

A majority of companies throughout the world produce sustainability reports, which can either be attached to their annual reports or issued separately. These companies understand that their long-term success and survival rely heavily on the fulfillment of the SDGs. The key objective of this study is to investigate the quality of sustainability reports produced by UAE-listed companies by examining how the SDGs are reflected.

In contrast to most other countries, the United Arab Emirates (UAE) took a proactive step in 2020, in which they made it compulsory for public companies to issue separate sustainability reports. Thus, it is legally obligatory for all firms listed on the Abu-Dubai Securities Exchange (ADX) and Dubai Financial Market (DFM) to produce sustainability reports covering the economic, social, and governance (ESG) factors related to their business operations. By aligning the UAE 2030 sustainability vision with the SDGs, it is assumed that significant improvements will be seen in the quality, accountability, and transparency of UAE companies. Ultimately, this will heighten the confidence that various stakeholders have in company reports produced in the UAE.

Moreover, an ESG guideline report was published by the DFM in 2019 to explain the benefits and implications of creating sustainability reports. In the report, it is stated that the UAE has made significant efforts to improve sustainability in the country based on the national UAE Vision 2021 framework and the UAE Green Agenda 2030, the Dubai Plan 2021, the Paris Agreement, and the UN Sustainable Development Goals. It is also stated that, in order to accomplish the SDGs, commitment is required from the governments, investors, and companies (DFM, 2019, p. 9).

This paper examines whether the proposed outcomes of the mandatory sustainability reports are in line with the SDGs and UAE Vision 2030. In particular, we investigate how listed companies in the UAE employ Sustainable Development Goal 11 (SDG 11) in their reporting practices. In doing that we use the GRI guidelines as a benchmark to assess the examine the quality of the UAE sustainability corporate reports in terms of SDG 11. Within the ambit of the SDGs, there is one line of research that focuses on investigating the quality of sustainability reports. One example to mention here is the study performed by Tsalis, Malamateniou, Koulouriotis, and Nikolaou (2020) who analyzed sustainability reporting in Greek companies based on the SDGs. Nonetheless, the present study focuses on the context of the UAE, a country in which the issuance of a sustainability report that is aligned with the SDGs is compulsory.

Furthermore, the desire to legitimize sustainability reports, irrespective of sustainability performance, is a key factor motivating companies to apply SDGs. Companies can over-present their sustainability disclosures in an attempt to create a positive corporate image and to cover the obligatory reporting requirements even when their sustainability performance is poor (Noronha & Wang, 2015). Braam, Uit de Weerd, Hauk, and Huijbregts (2016) point out that even companies with poor sustainability performance can benefit from carrying out corporate social responsibility (CSR) assurance as it can improve their organizational legitimacy. A socio-political theory is needed to explain the factors motivating companies to produce assured CSR reports. In line with this, we propose that the legitimacy theory (LT) should be employed for this purpose. LT can be used to determine whether the production of a sustainability report is a symbolic action made by companies to superficially portray a commitment to sustainability and fulfilling the mandatory reporting requirement without actually integrating the goals of SDG 11, or a substantive action to significantly improve their corporate sustainability.

In line with the factors discussed above, the following research questions have been addressed in the present study:

*RQ1: What is the disclosure quality of SDG 11 in the sustainability reports of UAE-listed companies?*

*RQ2: Do the sustainability reports of the UAE-listed companies indicate that SDG 11 is implemented as symbolic or substantive action?*

Thus, this study has two key contributions. As far as we are aware, all existing studies that have explored the quality of sustainability reporting concerning SDGs have been performed involuntary settings. Yet, the present study focuses on the UAE

context in which companies are legally compelled to produce sustainability reports and thus this serves as a valuable extension of existing literature. This enables the researcher to understand the key factors that companies consider when producing mandatory sustainability reports. It also allows them to examine whether such companies follow the recommended SDGs as a guideline or simply because they are forced to produce a report despite having poor sustainability. Secondly, as far as our knowledge any other studies investigate whether the production of sustainability reports is a symbolic or substantive measure to legitimize sustainability practices. Thus, this work adds more profound theoretical contributions to corporate sustainability literature.

The remainder of this paper is structured as follows: in Section 2, the SDGs will be discussed, particularly in the UAE context. Subsequently, in Section 3, the theoretical perspective of the study will be explained. In Section 4, the research methodology will be discussed, whilst the research findings will be examined in Section 5. Finally, the research conclusion will be presented in Section 6.

## 2. LITERATURE REVIEW – SDG DEVELOPMENT

The United Nations announced its global plan for sustainable development in September 2015. The plan was titled *Transforming our world: the 2030 Agenda for Sustainable Development* (UN, 2015). In this plan, 17 SDGs with 169 targets were outlined (Koch & Krellenberg, 2018). Through international institutions, these SDGs and targets have been integrated into companies and their supply chains (GRI, UN Global Compact, & WBCSD, 2017). Some of the SDGs refer to specific parts of the supply chain. For instance, suppliers must help to achieve sustainable production and consumption by meeting clean water and sanitation targets, whilst inbound logistics and distribution teams play a significant role in achieving sustainable cities and communities. Meanwhile, product teams and product end-of-life teams should focus on minimizing the impacts of climate change (Tsalis et al., 2020).

Meanwhile, most companies integrate SDGs within their corporate report. A study carried out by PricewaterhouseCoopers (2019) revealed that 62% of the companies included in the sample refer to SDGs in their reports. Nonetheless, the study also revealed that SDGs tend to be addressed in unspecified manners that fail to connect them with the heart of the companies and their business operations (Orlitzky, Siegel, & Waldman, 2011). Similarly, Bebbington and Unerman (2020) carried out a structured review of 805 papers published in business, management, and accounting academic journals. The researchers stated that their investigation was designed to examine how SDGs are understood and potentially articulated as a holistic point of engagement with business and management scholarship. However, the findings were not as strong or clear as they had hoped for (Bebbington & Unerman, 2020). Thus, several other researchers have attempted to examine how SDGs are integrated into corporate reporting and how SDGs and their relevant targets are discussed in corporate sustainability reports.

The adoption of SDGs for different strategic

and operational purposes has been investigated in one line of research. For instance, Grainger-Brown and Malekpour (2019) and Jones, Hillier, and Comfort (2016) examined strategic management, whilst Yiu and Saner (2017) explored resource control. Meanwhile, Sullivan, Thomas, and Rosano (2018) investigated the gaining of competitive advantage, Redman (2018) explored enhancements to CSR practices, whilst Arnold (2018) and Dressler and Bucher (2018) examined sustainability innovation. In contrast to existing studies, the present work focuses on how managers incorporate SDGs in their corporate reporting practices. One particular line of research has investigated how companies integrate SDGs in their annual reports. For example, Avramopou, Skouloudis, Iliopoulos, and Khan (2019) put forward a framework involving several GRI performance indicators and scoring systems that can be used to evaluate and compare SDGs presented in corporate sustainability reports. They found that, concerning reporting information relating to SDGs, a few European banks have a low level of disclosure. Additionally, Tsalis et al. (2020) investigated the qualitative and quantitative information provided in the SDGs of companies in Greece. We expand upon the existing studies by evaluating the disclosure quality of SDG 11 in the sustainability reports produced by UAE-listed companies.

The seven outcome targets of the SDG 11 are as follows: 1) to create sustainable cities and communities with safe and affordable housing, 2) to create affordable and sustainable transportation systems, 3) to achieve sustainable, inclusive urbanization, 4) to preserve global cultural and natural heritage, 5) to minimize the adverse effects of natural disasters, 6) to minimize city environmental impacts and 7) to create safe and inclusive green spaces. Meanwhile, the 'three means of attainment' designed to help less developed countries to create sustainable infrastructure are as follows: To engage in national and regional development planning, establish policies promoting inclusiveness and resource efficiency, and reduce the risks of disaster (UN, 2015).

We believe that SDG 11 is a critical goal in the UAE context. The population of the UAE has grown rapidly in recent years due to immigration, which has resulted in cities developing at a significant rate. In line with this, the authorities in the UAE have created initiatives to develop sustainable cities as a means of protecting the environment and generally improving the quality of life (Krzyszowski, 2020). The 'Estidama Program' is a key example to mention here. It is a key component of Abu Dhabi's Vision 2030 scheme and its purpose is to ensure that the highest sustainability standards for design, construction, and building management are achieved. In fact, it is one of the first programs of its kind to be implemented in the Middle East (Krzyszowski, 2020).

Moreover, in response to the growing demand for energy and the pursuit of sustainable development goals, His Highness Sheikh Mohammed bin Rashid Al Maktoum inaugurated the Dubai Solar Park (also known as MBR Solar Park) in 2019, which cost around 50 billion UAE dirhams (Umar et al., 2020). The MBR Solar Park will keep the UAE on track to meet its renewable energy goals targets

for 2050, all of which are aligned with SDG 11's objective of establishing sustainable cities and communities.

Therefore, all UAE companies listed on the ADX and DFM stock exchanges will be required to produce separate sustainability reports by 2020. The ESG disciplines are addressed in the sustainability report, which reflects the UAE 2030 vision. This initiative is fully aligned with the UN SDGs.

This study aims to examine the extent and quality of SDG 11 information released in the sustainability reports of UAE-listed companies. It also explores whether the information provided is a substantive or symbolic measure based on the LT, next section explains the research theoretical framework.

### 3. THEORETICAL FRAMEWORK

According to legitimacy theory, there is a "social contract" between a company and the society in which it operates society (Deegan, 2006) and this contract determines whether a company is acting within the bounds and norms of society and meeting its needs and expectations (Fernando & Lawrence, 2014). Thus, it seems that sustainability reports should illustrate the social contact between firms and their societies. Moreover, companies must be able to meet the needs and expectations of different stakeholders. When it comes to LT, legitimizing a company's operations by providing SDG sustainability reports is regarded to be a key factor motivating managers and companies to do whatever they must do to uphold their reputation as a legitimate company with legitimate purposes and ways of accomplishing these objectives (De Villiers & van Staden, 2006, p. 763).

There is a line of research (Donoher, 2017; Rosati & Faria, 2019; Silva, 2021; Kazemikhasragh, Cicchiello, & Pietronudo, 2021; Yu & Kuo, 2021; Erin, Bamigboye, & Oyewo, 2022; Küçükgül, Cerin, & Liu, 2022) that examine the corporate disclosures of SDGs from LT perspective. We extend this group of previous studies and employ LT to determine whether managers' commitment to SDG 11 is symbolic or substantive. Managers can use symbolic gestures to create "superficial impressions" that a company's activities are in line with social values and expectations (Soobaroyen & Ntim, 2013, p. 95). On the other hand, some managers may seek organizational legitimacy by taking concrete steps that involve real changes to organizational objectives, activities, and structures. Alternatively, they may adopt socially institutionalized behaviors (Ashforth & Gibbs, 1990, p. 178). In other words, some firms in the UAE report SDG 11 symbolically, which means that they do not reveal a great deal of qualitative and quantitative information regarding the SDG 11 objectives, whilst some report the SDG 11 substantively by demonstrating that they have implemented real organizational changes to meet the SDG 11 objectives.

This research examines symbolic-substitutive reporting practices by investigating the levels of SDG target disclosures in sustainability reports produced by companies in the UAE. This will be discussed in more depth in the subsequent section, which deals primarily with the research methodology.

### 4. RESEARCH METHODOLOGY

In this section, the methodological approach employed to evaluate the quality of corporate sustainability reports with SDG 11 will be discussed. The methodology used in Tsalis et al. (2020) study to evaluate sustainability reporting amongst Greek companies was also employed in the present investigation to establish a benchmark-scoring strategy involving two key step processes, i.e., the sustainability disclosure matrix (SDM) and the measurement system.

SDM is derived from the GRI disclosure standards, thus we compare the firm's sustainable report with GRI guidelines as an independent organization. Many previous studies (Elalfy et al., 2020; Diaz-Sarachaga, 2021) have used GRI guidelines to assess the quality of SDGs corporate disclosures. Thus, we use GRI-related disclosure standards as a benchmark to examine the disclosure quality of UAE companies in terms of SDG. The interlinkage between GRI standards disclosures and the SDGs was established using the SDG Compass, a tool developed by GRI, that mapping the GRI disclosures against the 17 SDGs and their targets.

A recent and updated report was published by the GRI detailing the connections between GRI standards and the UN SDGs. This classification is largely grounded within this field of study (Tsalis, Botsaropoulou, & Nikolaou, 2018; Tsalis et al., 2020). The GRI report outlines a series of disclosures developed according to GRI standards. A G4 is also available for specific-sector disclosure and each SDGs target.

The findings of our research indicate that the SDG 11 targets are connected to 13 transparency themes (see Appendix). The GRI indicators focus primarily on indirect economic effects (development of infrastructure investment development) and waste (e.g., composition, impact, weight, and value). Thus, to evaluate each SDG, multiple GRI standard disclosures are needed (see Table 1).

In terms of corporate reporting literature, there is a line of research (Elshandidy et al., 2021) that uses textual disclosure techniques by counting frequencies of words that indicate a specific theme (e.g., SDG 11) in the narrative sections of sustainable reports. Arguably, this method is quite subjective as it does not entitle an objective benchmark, adopted by an independent organization, in assessing the quality of the corporate sustainable reports in terms of SDG 11. However, we use a measurement approach that was employed to assess the quality of the sustainability reports once the SDM for SDG 11 had been defined based on the GRI disclosure standards. In fact, it is similar to that employed by Tsalis et al. (2020). An accountability indicator (AI) involving a 3-point scoring system will be used as the first indicator to evaluate the quality of the sustainability report disclosure (Nikolaou & Tsalis, 2013; Tsalis et al., 2018; Tsalis et al., 2020):

*0 point:* if information for a particular disclosure topic is not mentioned.

*1 point:* if the information provided for a particular disclosure topic is qualitative.

*2 points:* if the information provided for a particular disclosure topic is quantitative.

**Table 1.** The proposed sustainability disclosure matrix

SDG	Definition	Description	Disclosure topics by using GRI's codification	Disclosure topics by using GRI's codification
11	Sustainable cities and communities	Make cities and human settlements inclusive, safe, resilient, and sustainable.	203-1, 306-1, 306-2-2, 306-2-b, 306-2-c, 306-3-a, 306-4-a, 306-4-b, 306-4-c, 306-4-d, 306-5-a, 306-5-c, 306-5-d	13

Source: GRI et al. (2017).

**Table 2.** The max scores of total accountability indicator (TAI)

SDG	Number of disclosure topics	Total Accountability Indicator (TAI max)
11	13	26

In addition, Table 2 presents the max scores of total accountability indicator (TAI). Equation (1) can be used to calculate the estimated sum of scores for each disclosure topic proposed for SDG 11.

$$TAI = \sum_{i=0}^n AI_n \quad (1)$$

where,  $i$  represent the number of disclosure topics proposed.

To assess the quality of disclosure, stand-alone sustainability reports from UAE-listed firms have been collected in this research. Subsequently, the approach discussed above was followed. As previously stated, filing a sustainability report was made mandatory in the UAE in 2020. This meant that our sample size was small since the only available data at present is from the year 2020. Nonetheless, we collected data from the entire population. Our sample includes all publicly listed corporations in the UAE. This ultimately allows us to investigate variations in the quality of SDG 11 reporting disclosure between different industry sectors and this generates a more profound understanding of the topic.

To improve consistency and establish a suitable level of credibility, the research team was subdivided into three groups, each of which collected data (13 GRI indicators) from various companies. After this, the groups and the corporate reports were swapped. This means that the data collected for each corporation is checked three times.

## 5. RESULTS AND DISCUSSIONS

In this section, the findings of the empirical analysis will be discussed. Sustainability reports for all UAE firms listed in the ADX and DFM stock exchanges were collected. This involved a total of 136 listed companies (78 in ADX and 58 in DFM). However, five sustainability reports could not be obtained (3 from ADX and 2 from DFM), which left the total number of examined reports at 131 reports for the year 2020. The number of companies listed on the ADX and DFM exchanges is shown in Table 3. The companies were categorized into three sectors, namely manufacturing (i.e., construction and energy), services (i.e., telecommunication, hotels, and retail), and finance (i.e., banks and insurance companies).

**Table 3.** Companies listed in the UAE stock exchange

Stock exchange	No. of manufacturing companies	No. of services companies	No. of financial companies	Total
Abu-Dubai Securities Exchange (ADX)	25	16	32	73
Dubai Financial Market (DFM)	21	15	22	58
<b>Total</b>	<b>46</b>	<b>31</b>	<b>54</b>	<b>131</b>

First of all, the selected sustainability reports were analyzed to establish which parts provided the most information for each SDM disclosure topic. Subsequently, these sections were subjected to reexamination to evaluate the relevance of the information to SDG 11. The quality of the information provided was assessed using AI.

AI is relatively simple to use, and thus there were no issues encountered when scoring each section of the examined reports. In other words, the AI and its various levels are well-defined. After this, the TAI was calculated for SDG 11 and a scorecard was created for each sector, the key purpose of which was to document the results (see Table 4). Moreover, we calculated the average TAI (ATAI) score so that they could conclude the reporting practices implemented by UAE

companies. The average TAI value was then converted into a scale ranging from 0-1 for simplicity and commensurability (equation (1)). This scale is called Sustainable Development Goal Quality (SDGQ), which was calculated for each company and sector.

$$SDGQ = \frac{ATAI}{TAI_{max}} \quad (2)$$

Thus, to calculate the SDG quality (SDGQ) score, the quotient of the TAI average score achieved in the UAE, sustainable reports, as well as the max TAI score for SDG 11, are employed (see Table 4). The greater the SDGQ score, the better the quality of SDG 11 information disclosed.

**Table 4.** TAI, ATAI scores and the SDGQ values

	TAI	ATAI	SDGQ	SDGQ (Qualitative)
SDG 11 manufacturing companies	406	8.826086	0.339464	0.678929
SDG 11 services companies	224	6.588235	0.253394	0.506787
SDG 11 financial companies	258	4.690909	0.180419	0.3608391
<b>Total</b>	<b>908</b>	<b>6.676470</b>	<b>0.256787</b>	<b>0.515518</b>

Notes: TAI, total accountability indicator; ATAI, average total accountability indicator; SDGQ, sustainable development goal quality.

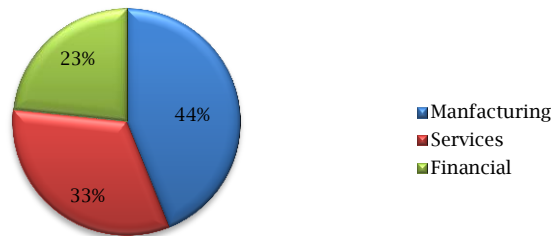
In Table 4, the ATAI and SDGQ scores for each company and sector regarding SDG 11 are presented.

On the whole, the level of information disclosed in the sustainability reports used in this study is relatively low (SDGQ score = 0.256). This is supported by the SDGQ scores that indicate significant room for improvement. The scores of the assessed reports are less than 0.5, which definitively shows that companies in the UAE provide incomplete information regarding their SDG 11-related management practices.

As shown in Figure 1, the SDGQ score is highest for the manufacturing (44% of the total

SDGQ score), followed by the services sector (33% of the total SDGQ score) and lastly, the finance sector (23% of the total SDGQ score). This could be because manufacturing activities are more relevant to SDG 11 topics. For instance, the indirect economic impacts of waste management in this sector are not the same as in the financial sector. In terms of the SDG11-related GRI indicators, a majority of companies disclose information regarding indirect economic impacts (SDGQ score = 0.61), whilst information disclosed about waste is extremely low (SDGQ score = 0.30).

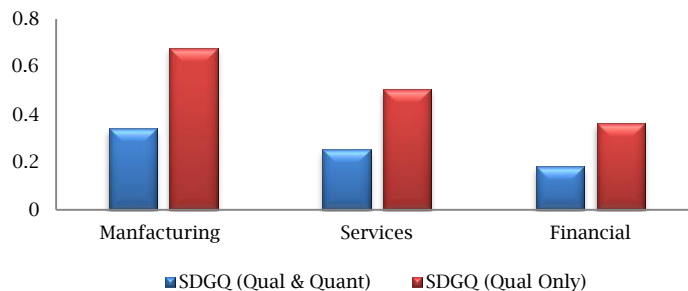
**Figure 1.** SDGQ for each sector



As shown in Figure 2, to further understand the results, the SDGQ was recalculated using the qualitative disclosed information (SDGQ score = 1), meaning that the TAI max is 13. In Table 4, it can be seen that the quality of disclosed information is (SDGQ score = 0.51). The score for the manufacturing sector score is 0.68 and the services sector score is 0.51. Nonetheless, this score is 0.36 for the financial sector, which falls below 0.5. This

indicates that companies in the manufacturing and services sectors reflect the SDG 11 indicator qualitatively and provide details regarding indirect economic effects (infrastructure and sustainable investment) and waste management approaches employed in their corporates, although they do not provide statistics or numerical figures for this. On the other hand, disclosure quality seems to be lower in the financial sector.

**Figure 2.** Score differential between overall SDGQ and qualitative SDGQ



In terms of LT, companies want to uphold their organizational legitimacy. Several researchers point out that companies legitimize their practices by carrying out symbolic and/or substantive actions to address changes to the business environment (Soobaroyen & Ntim, 2013; Vourvachis, Woodward, Woodward, & Patten, 2016). When carrying out symbolic actions, companies typically adhere to

the 'form' instead of the 'substance', meaning that leaders implement rules and systems to manage corporate resources and uphold legitimacy (Brennan, Guillaumon-Saorin, & Pierce, 2009). In the present work, it is assumed that companies who address SDG 11 in their reports do so as a 'form' and not a 'substance'. Thus, companies in the UAE only prepare reports due to legal obligation and to

uphold organizational legitimacy, and do not make efforts to enhance the quality of their SDG 11 disclosure.

Firms can uphold their organizational legitimacy by symbolically disclosing minimal information regarding SDG 11, without providing data on the reasonable level of risk. Some managers believe that they can uphold their reputation by simply providing low levels of SDG 11 information in their company reports.

Nonetheless, when taking into account only the qualitative information and the indirect economic effects, it seems that managers take substantive actions concerning the quality of this information. In general, listed companies in the UAE implement substantive changes to their organization and operational strategies to minimize indirect economic impacts, and this is evident from their corporate sustainability reports.

## 6. CONCLUSION

The principal aim of this study is to examine the standards of the sustainability reports provided by UAE-listed companies. This objective is realized by using legitimacy theory to determine the extent to which the reports reflect the SDGs. The study explored how the reporting procedures of UAE-listed companies apply SDG 11. Hence, the evaluation framework developed by Tsalis et al. (2020) was adopted in the current study. In pursuit of this objective, the study employs a framework consisting of 13 disclosure topics recommended by recent GRI guidelines. The study comprised the empirical evaluation of 130 reports published in 2020. The selection for this year was predicated on the fact that the publication of individual sustainability reports became mandatory for companies in 2020.

While the reports evaluated in this study only pertain to one year, the findings provide an overview of approaches to reporting in the UAE. Specifically, this research has revealed that UAE corporate reporting is not significantly influenced by the UAE vision 2030 Agenda. Moreover, there were no major

changes to SDG 11, with managers tending to function symbolically in terms of their roles in the level and quality of SDG 11-related disclosures. In other words, there was no evidence of any significant modifications to operational practice, strategic activities, or corporate reporting.

Nevertheless, the study suggests that the quality of disclosure related to indirect economic impacts, such as infrastructure investment, is reasonable. Furthermore, the qualitative information related to SDG 11 indicators surpassed quantitative information.

There are several limitations to the methodological approach emerging from the empirical evaluation, the first of which is the presence of confusion related to the disclosure topics. GRI has accurately determined the range of each topic. However, challenges remained to ascertain the information required to analyze reporting processes about SDG content. Therefore, it is possible to elevate the reliability of sustainability report appraisals by revising the SDM. Moreover, revisions to metrics could be implemented, including changes to how AI is scored, thus rendering the analysis of sustainability reports more accurate. Another limitation is the fact that the study focuses on the evaluation of just one SDG. In a similar vein, the study is limited by the fact that the research examines reports from just one year and one country. Hence, the generalizability of the resultant finding is limited.

These limitations are indicative of the need for various forms of additional research, not least of which is time series investigations that encompass multiple SDGs and companies in diverse settings. Therefore, it would be possible to examine the diverse standards of information disclosure in sustainability reports. In addition, future research must identify the influences that determine corporate disclosure practices. The impact of variables such as company size, industry type, CSR certification, growth rates, profitability, and external sustainability assurance all have the potential to shape the quality of SDG disclosures.

## REFERENCES

1. Arnold, M. G. (2018). Sustainability value creation in frugal contexts to foster sustainable development goals. *Business Strategy & Development*, 1(4), 265-275. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1002/bsd2.36>
2. Avrampou, A., Skouloudis, A., Iliopoulos, G., & Khan, N. (2019). Advancing the sustainable development goals: Evidence from leading European banks. *Sustainable Development*, 27(4), 743-757. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1002/sd.1938>
3. Bebbington, J., & Unerman, J. (2020). Advancing research into accounting and the UN sustainable development goals. *Accounting, Auditing & Accountability Journal*, 33(7), 1657-1670. <https://doi.org/10.1108/AAAJ-05-2020-4556>
4. Braam, G. J. M., Uit de Weerd, L. U., Hauck, M., & Huijbregts, M. A. J. (2016). Determinants of corporate environmental reporting: The importance of environmental performance and assurance. *Journal of Cleaner Production*, 129(15), 724-734. <https://doi.org/10.1016/j.jclepro.2016.03.039>
5. Brennan, N. M., Guillamon-Saorin, E., & Pierce, A. (2009). Methodological insights: Impression management: Developing and illustrating a scheme of analysis for narrative disclosures — A methodological note. *Accounting, Auditing and Accountability Journal*, 22(5), 789-832. <https://doi.org/10.1108/09513570910966379>
6. Dalampira, E.-S., & Nastis, S. A. (2020). Mapping sustainable development goals: A network analysis framework. *Sustainable Development*, 28(1), 46-55. <https://doi.org/10.1002/sd.1964>
7. De Villiers, C., & van Staden, C. J. (2006). Can less environmental disclosure have a legitimising effect? Evidence from Africa. *Accounting, Organizations and Society*, 31(8), 763-781. <https://doi.org/10.1016/j.aos.2006.03.001>
8. Deegan, C. (2006). Legitimacy theory. In Z. Hoque (Ed.), *Methodological Issues in accounting research: Theories and methods* (pp. 161-181). London, UK: Spiramus. Retrieved from <http://ecite.utas.edu.au/138462>
9. Diaz-Sarachaga, J. M. (2021). Shortcomings in reporting contributions towards the sustainable development goals. *Corporate Social Responsibility and Environmental Management*, 28(4), 1299-1312. <https://doi.org/10.1002/csr.2129>



10. Donoher, W. J. (2017). The multinational and the legitimization of sustainable development. *Transnational Corporations*, 24(3), 49–60. <https://doi.org/10.18356/5dbad6d9-en>
11. Dressler, A., & Bucher, J. (2018). Introducing a sustainability evaluation framework based on the sustainable development goals applied to four cases of South African frugal innovation. *Business Strategy & Development*, 1(4), 276–285. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1002/bsd2.37>
12. Dubai Financial Market. (2019). *ESG reporting guide*. Retrieved from [https://www.dfm.ae/docs/default-source/default-document-library/esg-reporting-guide\\_en.pdf?sfvrsn=60fa7681\\_0](https://www.dfm.ae/docs/default-source/default-document-library/esg-reporting-guide_en.pdf?sfvrsn=60fa7681_0)
13. ElAlfy, A., Palaschuk, N., El-Bassiouny, D., Wilson, J., & Weber, O. (2020). Scoping the evolution of corporate social responsibility (CSR) research in the sustainable development goals (SDGs) era. *Sustainability*, 12(14). <https://doi.org/10.3390/su12145544>
14. Elrazaz, T. Z., Elmassri, M., & Ahmed, Y. (2021). Real earnings manipulation surrounding mergers and acquisitions: The targets' perspective. *International Journal of Accounting & Information Management*, 29(3), 429–451. <https://doi.org/10.1108/IJAIM-11-2020-0188>
15. Elshandidy, T., Elmassri, M., & Elsayed, M. (2021). Integrated reporting, textual risk disclosure and market value. *Corporate Governance*, 22(1), 173–193. <https://doi.org/10.1108/CG-01-2021-0002>
16. Erin, O. A., Bamigboye, O. A., & Oyewo, B. (2022). Sustainable development goals (SDG) reporting: an analysis of disclosure. *Journal of Accounting in Emerging Economies*. <https://doi.org/10.1108/JAEE-02-2020-0037>
17. Fernando, S., & Lawrence, S. (2014). A theoretical framework for CSR practices: Integrating legitimacy theory, stakeholder theory and institutional theory. *Journal of Theoretical Accounting Research*, 10(1), 149–178. Retrieved from <https://www.proquest.com/openview/8191f6e45b88654284c54ae65135ab41/1?pq-origsite=gscholar&cbl=28068>
18. Geissdoerfer, M., Morioka, S. N., de Carvalho, M. M., Evans, S. (2018). Business models and supply chains for the circular economy. *Journal of Cleaner Production*, 190, 712–721. <https://doi.org/10.1016/j.jclepro.2018.04.159>
19. Global Reporting Initiative (GRI), United Nations Global Compact (UN Global Compact), & World Business Council for Sustainable Development (WBCSD). (2017). *Business reporting on the SDGs. An analysis of the goals and targets*. Retrieved from [https://www.globalreporting.org/media/v5milwee/gri\\_ungc\\_business-reporting-on-sdgs\\_analysis-of-goals-and-targets.pdf](https://www.globalreporting.org/media/v5milwee/gri_ungc_business-reporting-on-sdgs_analysis-of-goals-and-targets.pdf)
20. Global Reporting Initiative. (2018). *Integrating the SDGs into corporate reporting: A practical guide*. Amsterdam, the Netherlands: Global Reporting Initiative and UN Global Compact. Retrieved from [https://d306pr3pise04h.cloudfront.net/docs/publications%2FPractical\\_Guide\\_SDG\\_Reporting.pdf](https://d306pr3pise04h.cloudfront.net/docs/publications%2FPractical_Guide_SDG_Reporting.pdf)
21. Global Reporting Initiative. (2020). *Sustainability disclosure database: Data legend*. Amsterdam, the Netherlands: Global Reporting Initiative and UN Global Compact Retrieved from <https://www.globalreporting.org/media/m22dl3o0/gri-data-legend-sustainability-disclosure-database-profiling.pdf>
22. Grainger-Brown, J., & Malekpour, S. (2019). Implementing the sustainable development goals: A review of strategic tools and frameworks available to organisations. *Sustainability*, 11(5). <https://doi.org/10.3390/su11051381>
23. Halisçelik, E., & Soytaş, M. A. (2019). Sustainable development from millennium 2015 to sustainable development goals 2030. *Sustainable Development*, 27(4), 545–572. <https://doi.org/10.1002/sd.1921>
24. Jones, P., Hillier, D., & Comfort, D. (2016). Sustainability in the hospitality industry: Some personal reflections on corporate challenges and research agendas. *International Journal of Contemporary Hospitality Management*, 28(1), 36–67. <https://doi.org/10.1108/IJCHM-11-2014-0572>
25. Kazemikhasragh, A., Cicchiello, A. F., & Pietronudo, M. C. (2021). Factors influencing the adoption of SDG reporting by large African and Asian companies. *International Journal of Technology Management & Sustainable Development*, 20(1), 43–60. [https://doi.org/10.1386/tmsd\\_00034\\_1](https://doi.org/10.1386/tmsd_00034_1)
26. Koch, F., & Krellenberg, K. (2018). How to contextualize SDG 11? Looking at indicators for sustainable urban development in Germany. *ISPRS International Journal of Geo-Information*, 7(12), 464. <https://doi.org/10.3390/ijgi7120464>
27. Krzymowski, A. (2020). Sustainable development goals in Arab region — United Arab Emirates' case study. *Problemy Ekorozwoju — Problems of Sustainable Development*, 15(1), 212–220. <https://doi.org/10.35784/pe.2020.1.22>
28. Küçükgül, E., Cerin, P., & Liu, Y. (2022). Enhancing the value of corporate sustainability: An approach for aligning multiple SDGs guides on reporting. *Journal of Cleaner Production*, 333. <https://doi.org/10.1016/j.jclepro.2021.130005>
29. Nikolaou, I. E., & Tsalis, T. A. (2013). Development of a sustainable balanced scorecard framework. *Ecological Indicators*, 34, 76–86. <https://doi.org/10.1016/j.ecolind.2013.04.005>
30. Noronha, C., Wang, S. X. (2015). Corporate social disclosure and performance gap: Greenwashing Foxconn's Shenzhen factories. In C. Noronha (Ed.), *Corporate social disclosure* (pp. 59–86). London, the UK: Palgrave Macmillan. [https://doi.org/10.1057/9781137414694\\_3](https://doi.org/10.1057/9781137414694_3)
31. Orlitzky, M., Siegel, D. S., & Waldman, D. A. (2011). Strategic corporate social responsibility and environmental sustainability. *Business & Society*, 50(1), 6–27. <https://doi.org/10.1177/0007650310394323>
32. PricewaterhouseCoopers. (2019). *Creating a strategy for a better world: How the sustainable development goals can provide the framework for business to deliver progress on our global challenges*. Retrieved from <https://www.pwc.com/gx/en/sustainability/SDG/sdg-2019.pdf>
33. Redman, A. (2018). Harnessing the sustainable development goals for businesses: A progressive framework for action. *Business Strategy & Development*, 1(4), 230–243. Retrieved from <https://onlinelibrary.wiley.com/doi/10.1002/bsd2.33>
34. Rosati, F., & Faria, L. G. D. (2019). Business contribution to the sustainable development agenda: Organizational factors related to early adoption of SDG reporting. *Corporate Social Responsibility and Environmental Management*, 26(3), 588–597. <https://doi.org/10.1002/csr.1705>
35. Schaltegger, S., Etxebarria, I. A., & Ortas, E. (2017). Innovating corporate accounting and reporting for sustainability — Attributes and challenges. *Sustainable Development*, 25(2), 113–122. <https://doi.org/10.1002/sd.1666>
36. 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, 59–82. <https://doi.org/10.1007/s10551-015-2862-3>



37. Silva, S. (2021). Corporate contributions to the sustainable development goals: An empirical analysis informed by legitimacy theory. *Journal of Cleaner Production*, 292. <https://doi.org/10.1016/j.jclepro.2021.125962>
38. Soobaroyen, T., & Ntim, C. G. (2013). Social and environmental accounting as symbolic and substantive means of legitimation: The case of HIV/AIDS reporting in South Africa. *Accounting Forum*, 37(2), 92–109. <https://doi.org/10.1016/j.accfor.2013.04.002>
39. Sullivan, K., Thomas, S., & Rosano, M. (2018). Using industrial ecology and strategic management concepts to pursue the sustainable development goals. *Journal of Cleaner Production*, 174, 237–246. <https://doi.org/10.1016/j.jclepro.2017.10.201>
40. Tsalis, T. A., Botsaropoulou, V. D., & Nikolaou, I. E. (2018). A methodology to evaluate the disclosure practices of organisations related to climate change risks: a case study of international airports. *International Journal of Global Warming*, 15(3), 257–276. <https://doi.org/10.1504/IJGW.2018.093120>
41. Tsalis, T. A., Malamateniou, K. E., Koulouriotis, D., & Nikolaou, I. E. (2020). New challenges for corporate sustainability reporting: United Nations' 2030 agenda for sustainable development and the sustainable development goals. *Corporate Social Responsibility and Environmental Management*, 27(4), 1617–1629. <https://doi.org/10.1002/csr.1910>
42. Umar, T., Egbu, C., Ofori, G., Honnurvali, M. S., Saidani, M., Shibani, A., ... Goh, K. (2020). UAE's commitment towards UN sustainable development goals. *Proceedings of the Institution of Civil Engineers: Engineering Sustainability*, 173(7), 325–343. <https://doi.org/10.1680/jensu.19.00036>
43. United Nations. (2015). *Transforming our world: The 2030 agenda for sustainable development*. Retrieved from <https://sdgs.un.org/2030agenda>
44. Vourvachis, P., Woodward, T., Woodward, D. G., & Patten, D. M. (2016). CSR disclosure in response to major airline accidents: A legitimacy-based exploration. *Sustainability Accounting, Management and Policy Journal*, 7(1), 26–43. <https://doi.org/10.1108/SAMPJ-12-2014-0080>
45. Williams, A., Whiteman, G., & Parker, J. (2019). Backstage interorganizational collaboration: Corporate endorsement of the sustainable development goals. *Academy of Management Discoveries*, 5(4), 367–395. <https://doi.org/10.5465/amd.2018.0154>
46. World Commission on Environment and Development. (1987). *Our common future*. Oxford, the UK: Oxford University Press.
47. Yiu, L., & Saner, R. (2017). Business diplomacy in implementing the Global 2030 development agenda: Core competencies needed at the corporate and managerial level. *International Business Diplomacy*, 18, 33–58 <https://doi.org/10.1108/S1877-636120170000018001>
48. Yu, H. C., & Kuo, L. (2021). Corporate philanthropy strategy and sustainable development goals. *Sustainability*, 13(10). <https://doi.org/10.3390/su13105655>

## APPENDIX. SDG 11 AND RELATED GDI CODES

<i>SDG/ Target</i>	<i>Available business disclosures</i>	<i>Disclosure</i>	<i>Sources</i>
11.2	a. Extent of development of significant infrastructure investments and services supported. b. Current or expected impacts on communities and local economies, including positive and negative impacts where relevant. c. Whether these investments and services are commercial, in-kind, or pro bono engagements.	203-1	GRI 203: Indirect Economic Impacts 2016 <sup>a</sup>
11.6	a. For the organization's significant actual and potential waste-related impacts, a description of: i. the inputs, activities, and outputs that lead or could lead to these impacts; ii. whether these impacts relate to waste generated in the organization's own activities or to waste generated upstream or downstream in its value chain.	306-1	GRI 306: Waste 2020 <sup>b</sup>
11.6	Actions, including circularity measures, taken to prevent waste generation in the organization's own activities and upstream and downstream in its value chain, and to manage significant impacts from waste generated.	306-2-a	GRI 306: Waste 2020 <sup>b</sup>
11.6	If the waste generated by the organization in its own activities is managed by a third party, a description of the processes used to determine whether the third party manages the waste in line with contractual or legislative obligations.	306-2-b	GRI 306: Waste 2020 <sup>b</sup>
11.6	The processes used to collect and monitor waste-related data.	306-2-c	GRI 306: Waste 2020 <sup>b</sup>
11.6	Total weight of waste diverted from disposal in metric tons, and a breakdown of this total by composition of the waste.	306-3-a	GRI 306: Waste 2020 <sup>b</sup>
11.6	Total weight of waste diverted from disposal in metric tons, and a breakdown of this total by composition of the waste.	306-4-a	GRI 306: Waste 2020 <sup>b</sup>
11.6	Total weight of hazardous waste diverted from disposal in metric tons, and a breakdown of this total by the following recovery operations: i. preparation for reuse; ii. recycling; iii. other recovery operations.	306-4-b	GRI 306: Waste 2020 <sup>b</sup>
11.6	Total weight of non-hazardous waste diverted from disposal in metric tons, and a breakdown of this total by the following recovery operations: i. preparation for reuse; ii. recycling; iii. other recovery operations.	306-4-c	GRI 306: Waste 2020 <sup>b</sup>
11.6	A breakdown of the total weight in metric tons of hazardous waste and of non-hazardous waste diverted from disposal: i. onsite. ii. offsite.	306-4-d	GRI 306: Waste 2020 <sup>b</sup>
11.6	Total weight of waste directed to disposal in metric tons, and a breakdown of this total by composition of the waste.	306-5-a	GRI 306: Waste 2020 <sup>b</sup>
11.6	Total weight of hazardous waste directed to disposal in metric tons, and a breakdown of this total by the following disposal operations: i. incineration (with energy recovery); ii. incineration (without energy recovery); iii. landfilling; iv. other disposal operations.	306-5-b	GRI 306: Waste 2020 <sup>b</sup>
11.6	Total weight of non-hazardous waste directed to disposal in metric tons, and a breakdown of this total by the following disposal operations: i. incineration (with energy recovery); ii. incineration (without energy recovery); iii. landfilling; iv. other disposal operations.	306-5-c	GRI 306: Waste 2020 <sup>b</sup>
11.6	For each disposal operation listed in Disclosures 306-5-b and 306-5-c, a breakdown of the total weight in metric tons of hazardous waste and of non-hazardous waste directed to disposal: i. onsite; ii. offsite.	306-5-d	GRI 306: Waste 2020 <sup>b</sup>

Notes: a. Available at <https://www.globalreporting.org/standards/media/1004/gri-203-indirect-economic-impacts-2016.pdf>;

b. Available at <https://www.globalreporting.org/standards/media/2573/gri-306-waste-2020.pdf>

Source: GRI et al. (2017, pp. 3-4).