

Stakeholder perceptions of sustainability reporting on the websites of technical universities in Ghana

Websites of
technical
universities in
Ghana

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Abstract

Purpose – This paper explores stakeholder perceptions on the nature and extent of sustainability reporting on the websites of technical universities (TUs) in Ghana.

Design/methodology/approach – The authors collected data from the websites of the 10 TUs in Ghana and interviewed the stakeholders of the TUs. In analyzing the data, the authors used thematic analysis for the interview responses. The authors also adopted the global reporting initiative (GRI) guidelines and campus sustainability assessment tools for the presentation and analysis of the sustainability disclosures on the websites of the TUs.

Findings – The authors found that due to weak institutional coercions, there were limited disclosures on the websites of the TUs, which aimed at gaining stakeholders' legitimacy; the disclosures were more focused on organizational profile, governance and educational aspects of sustainability. To a large extent, while some external stakeholders such as parents, regulators and alumni appear to be less interested in the disclosures on the TU's websites, internal stakeholders such as employees (teaching and non-teaching staff) and students who frequently visited the TU's websites perceived limited reporting and were not impressed with the extent of sustainability disclosures on these websites.

Practical implications – The findings of this study are intended to assist policy-makers in the educational sector to appreciate the importance of sustainability reporting on their websites. The results of this study will assist higher educational institutions (HEIs) in increasing the success rate of sustainability implementation by overcoming the lack of sustainability disclosures on their websites. Thus, the results of this study have implications for sustainability implementations, particularly those in emerging economies and policy-makers of universities worldwide.

Originality/value – This study could provide two significant values. First, to the best of the authors' knowledge, no other study has explored stakeholder perceptions of sustainability reporting in implementing sustainability within the education sector. Second, the results were arrived at by combining stakeholder



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consultations with content analyses, which could be a good guideline for sustainability implementation in the educational sector of developing countries.

Keywords Institutional theory, Ghana, Websites, Sustainability reporting, Global reporting initiative, Technical universities

Paper type Research paper

1. Introduction

Technical universities (TUs) are higher educational institutions (HEIs) responsible for the delivery of technical and vocational education and training (TVET), including the study of technical and related vocational curriculum that are aimed at the development of practical skills, behaviors, comprehension and knowledge of professions in different sectors and social life (Kruglikov Victor, 2019; Melki *et al.*, 2020). Therefore, unlike traditional university education, TU education aims at providing hands-on skills and knowledge and its applications (Kruglikov Victor, 2019) to productive jobs (Attanasio *et al.*, 2017) to ensure a sustainable world.

The role of universities in sustainable development is twofold: they must facilitate education for sustainable development and adopt successful policies to achieve this objective (Asif, 2015; Lozano *et al.*, 2015; Uyar *et al.*, 2021). Nonetheless, the prominence of TUs keep rising as existing studies demand the revolution and reformation of higher education, while claiming that traditional universities' ability to propose solutions to societal problems is far under-explored (Vienni Baptista and Rojas-Castro, 2020; Sulkowski *et al.*, 2020). Consequently, stakeholders such as students, workers, parents, alumni, employers, lenders, vendors, non-governmental organizations, regulatory bodies and local communities are pressuring TUs to respond to these calls (Alonso-Almeida *et al.*, 2015). Thus, increasingly, TUs are encouraged to become more open about and accountable for their operations and compelled in some respects by societal pressure or ramped-up regulation (Alexa *et al.*, 2020). Just like any other organization, one way that TUs are adopting to respond to pressure from stakeholders is sustainability reporting on their websites (Uyar *et al.*, 2021).

Sustainability reporting is an important engagement tool used to convey the sustainable practices implemented for stakeholders by TUs (Berzosa *et al.*, 2017; Boiral and Heras-Saizarbitoria, 2020). Sustainability reporting can also be used to manage performance in TUs (Domingues *et al.*, 2017; Talapatra and Uddin, 2019). It is referred to as a voluntary activity that is aimed at communicating an organization's initiatives and sustainability efforts to its stakeholders (Amoako *et al.*, 2022; Higgins *et al.*, 2018; Nicolò *et al.*, 2021; Stough *et al.*, 2018; Majumdar and Sinha, 2021), as well as assessing the status quo of an organization's environmental, social and economic dimensions. Even though several universities are now embracing sustainability reporting practices (Asif, 2015; An *et al.*, 2019; Brusca *et al.*, 2018; Gamage and Sciulli, 2017), research on sustainability reporting of HEIs are fragmented. Compared to sustainability reporting in corporations, it is in its infancy in terms of the number of universities reporting and the magnitude of reporting. However, it can be argued that sustainability reporting could render a basis for TUs to evaluate and report their sustainability initiative (Alexa *et al.*, 2020; Holmberg *et al.*, 2008). Hence this study aims to explore the nature and extent of sustainability reporting on the websites of TUs in Ghana and how stakeholders perceive such disclosures.

Sustainability seeks to promote a better world with practical education, innovation and infrastructure development, as a dynamic tool for competitive economic forces that generate employment and income (Montecalvo *et al.*, 2018; Nicolò *et al.*, 2021). In fulfilling better growth in these areas, TUs play key roles in human resources training and development by ensuring the effective delivery of TVET (Kruglikov Victor, 2019). While studies on sustainability reporting of universities and HEI, in general, remain fragmented, such studies on TUs in emerging economies are non-existing. However, the need for studies on sustainability reporting on TUs is essential because several studies have argued for the evolution and restructuring of TU by insisting that

they are capable of resolving societal challenges that are complex to handle (Kouatli, 2019; Singh and Joshi, 2015). Therefore, our study examines stakeholder perception on the nature and extent of sustainability reporting in the websites of TUs. This is relevant because, despite the increasing interest in the crucial role of TVET education in sustainable development, sustainability reporting studies in the educational institutions have only received attention recently, but particularly, in traditional universities in advanced economies.

Again, these recent studies involving HEIs sustainability reporting have failed to account for stakeholders' opinions in investigating the extent of sustainability reporting, thereby ignoring recent calls from researchers (such as Ansu-Mensah *et al.*, 2021; Amoako *et al.*, 2022; Diouf and Boiral, 2017) on engaging and dialogging with stakeholders about sustainability. Meanwhile, stakeholders have consistently been identified as critical motivators whose concerns should be factored into sustainability practices, including reporting (Amoako *et al.*, 2021). Furthermore, empirical studies and models for evaluating sustainability reporting remain fragmented in emerging economies (Amoako *et al.*, 2022; Hinson *et al.*, 2015). Meanwhile, these economies have been identified as flashpoints of sustainable development challenges where globalization has been slow in driving economic prosperity and poverty elevation (Amoako *et al.*, 2021; Kodila-Tedika *et al.*, 2016; Majumdar and Sinha, 2021), with a low level of sustainability education (Wu *et al.*, 2015). We have selected TUs in Ghana for this study because, given their mandate to provide practical solutions to societal problems, it can be argued that TUs could play important role in promoting sustainability reporting in the HEI sector. Yet, there is a paucity of studies that investigate sustainability reporting among TUs in emerging economies, including Ghana.

Ultimately, this study is motivated by the need for more research to be conducted within the context of HEIs in developing countries, as a way to bridge the research gap that exists. Therefore, this paper seeks to answer three questions in the context of Ghana's 10 TUs: (1) What dimensions of sustainability are reported on the websites of the TUs? (2) What is the extent of sustainability reporting on the websites of the TUs? (3) What are stakeholders' impressions on the sustainability reporting contents on the TUs' websites? In promoting more frequent and meaningful sustainability disclosures, particularly among HEIs in emerging economies, the answers to these questions will provide basis for discussion about sustainability issues.

The paper has practical implications because it presents how TUs have been reporting their contributions toward achieving sustainable development goals (SDGs) in pursuing TVET within the context of Ghana, an emerging economy. Thus, findings from this study intend to draw the attention of TUs management to the need for comprehensive sustainability reporting as a medium of improving their positions in the university rankings. According to Galleli *et al.* (2022), the level of sustainability disclosures is a critical indicator in ranking the performance of universities. This is crucial to the sustainability of TUs as highly ranked universities are most likely to attract more students and funding (Galleli *et al.*, 2022). We also extend the limited studies on sustainability reporting of HEIs by adding stakeholders' voices which have been ignored by most of these studies. Again, stakeholder perceptions need to be given attention since stakeholders' role in the globalization of higher education is key, sophisticated and increasingly powerful (Alexa *et al.*, 2020; De La Torre *et al.*, 2017). Using all the 10 TUs in Ghana, this study examines TUs' websites sustainability reporting and explores stakeholder perceptions on the contents of sustainability disclosures on these websites.

The present study differs from the previous literature in the sense that, previous studies in sustainability reporting among HEIs (such as Domingues *et al.*, 2017; Guthrie and Farneti, 2008; Montecalvo *et al.*, 2018; Nicolò *et al.*, 2021; Sulkowski *et al.*, 2020; Uyar *et al.*, 2021) have tried to identify the significant trends in sustainability reporting toward the achievement of various dimensions of sustainability. These to a large extent ignore stakeholder perceptions and have been on traditional universities. Therefore, we explore stakeholder perceptions on the nature and extent of sustainability reporting on the websites of TUs in Ghana. This is

important as universities generally have been given less attention by researchers on sustainability reporting. Yet compared to traditional universities, studies on reporting in TUs still appear non-existing, particularly in emerging economies. To the best of our knowledge, this study is the first to concentrate solely on TUs in emerging economies.

The rest of the paper is structured as follows: [Section 2](#) presents the literature review with much focus on the theoretical underpinnings and empirical reviews of extant literature, [Section 3](#) is on the research context, [Section 4](#) presents the methods, [Section 5](#) presents the research findings and discussions and finally, [Section 5](#) draws conclusions to the study.

2. Literature

This section elaborates on institutional theory and sustainability in TUs as a way of gaining stakeholder legitimacy.

2.1 *Institutional and legitimacy theories*

Institutions are defined as the composition of beliefs, norms, rules and organizations that enforce limitations on human nature by expressing what is unacceptable and acceptable. Institutions consist of laws, normative and cultural-cognitive factors ([Scott, 2005](#); [Webb et al., 2020](#)) in both formal and informal codes of conduct ([Webb et al., 2020](#)) which are supported by rewards and sanctions ([Harring, 2016](#)). In existing studies, the perceptions on the role of institutions have advanced from absolute institutional biases to institutional determinism ([Derkacz, 2020](#)). The neo-institutional theory has been adopted to extensively examine the trends of an organizational approach to institutional dynamism ([DiMaggio and Powell, 1983](#); [Meyer and Rowan, 1977](#)). Neo-institutional theory elaborates how constituents of organizations, such as the practices, structures and professions, emerge and grow in society ([Rahman et al., 2020](#); [Suddaby, 2010](#)).

According to proponents of the theory, the institutional environment can affect the establishment of those elements more than pressure emanating from the market ([Meyer and Rowan, 1977](#)). This is because organizations are trying to attain and maintain legitimacy with their stakeholders, which is critical for their survival since they control and provide firms with access to environmental resources ([Suddaby et al., 2017](#)). Hence, institutional theory in the sustainability reporting of TUs aims to ensure that TUs survive and operate in an environment that consistently encounters institutional changes because of the emergence of new regulatory frameworks and the advancement of innovative practices and designs.

Proponents of institutional theory have identified three types of isomorphism: coercive, mimetic and normative ([DiMaggio and Powell, 1983](#); [Greenwood and Meyer, 2008](#)). Isomorphism is claimed to be coercive if there are formal and informal pressures from other institutions that the firm depends on and cultural expectations from the society. Mimetic isomorphism stems from an unpredictable environment that motivates organizations to utter their operations intentionally or unintentionally by adopting the operations of peers perceived as superior, recommendations from consultants and employees recruited from other companies with higher standards ([DiMaggio and Powell, 1983](#); [Greenwood and Meyer, 2008](#)). Lastly, normative isomorphism comes from the professionalization of operations which are motivated by acquiring academic and professional education. This is further reinforced by organizations relationship within rising professional associations, through which new ideas emerge rapidly. [DiMaggio and Powell \(1983\)](#) explain that the three isomorphic pressure types mostly interplay. Thus, they may lead to different outcomes, including what could be reported on the websites of TUs in Ghana.

The institutional approach to sustainability is similar to the legitimacy theory ([Agyekum and Singh, 2018](#); [Jeong and Kim, 2019](#)), which proposes that there exists a “social contract” between organizations and society. In explaining sustainability reporting, existing studies

claim that the organizations' pursuit of legitimacy is the key motivation to adopt socially acceptable practices and structures (O'Dwyer *et al.*, 2011; Talapatra *et al.*, 2020). Therefore, in gaining legitimacy, organizations strategize to meet institutional pressures and emulate their peers' best practices, which culminates in institutional isomorphism (Amoako *et al.*, 2018). Thus, organizations have similarities, particularly in the same industry, as they follow the same managerial practice (Amoako *et al.*, 2018).

In the educational sector, coercion and mimicry can lead to normative isomorphism. Therefore, it could be argued that TUs may be coerced to disclose some information which could lead to imitating the sector's leaders in sustainability reporting. In this case, the observance of professional disclosure frameworks such as global reporting initiative (GRI) and campus sustainability assessment tools become the norm that all HEIs perceive as the newly accepted professional standard (Hinson *et al.*, 2015)

By examining the normative dimension of both theories, this study contributes to the existing literature on stakeholder engagement in HEIs. Since TUs play a public role in education, research and service to communities in which the TUs are located, these dimensions become particularly relevant (Ferrero-Ferrero *et al.*, 2018). In tandem with the above, TUs should engage their stakeholders to align their functions with stakeholders' expectations, allowing them to adopt various principles, strategies and actions, which all lead to sustainable development. Additionally, stakeholder engagement promotes the construction of social norms and values which TUs can use to legitimize their operations. Therefore, in response to normative pressure and imitation effects (O'Dwyer *et al.*, 2011), TUs are encouraged to engage stakeholders and apply regulatory frameworks in sustainability reporting. Nonetheless, considering the relevance of stakeholder engagement in sustainability reporting, to a large extent, sustainability research in HEIs (such as Ceulemans *et al.*, 2020; Moura *et al.*, 2019) has ignored stakeholders voices with little or no study on stakeholder engagement among TUs in emerging economies. Drawing from the previous argument, further work on stakeholder perceptions of sustainability reporting is necessary to address their needs and arguments in a custom-made way (Larrán Jorge *et al.*, 2019; Hinson *et al.*, 2015; Lopatta and Jaeschke, 2014).

2.2 Sustainability in technical and vocational education and training (TVET)

Universities are indispensable in molding communities (Singh and Joshi, 2015). This has placed education as an important venture in promoting sustainability, thus attracting pressure toward the sector. Universities are perceived to have the fiduciary duty to equip professionals with the skills, exposure, knowledge and competency required to meet the evolving pressure that individuals, intuitions and society need (Mititelu *et al.*, 2017; Talapatra and Gaine, 2019).

TUs provide TVET also known as career and productive education, technical education, technology education, or competency-based training (CBT) (McGrath *et al.*, 2020). This form of training and development focuses on specific competencies or skills which make such an approach inseparable from the world of work. This is because it provides relevant knowledge and skills to prepare students and trainees to be economically productive members of society (Orbeta, 2022). The cardinal principle of TVET emphasizes on increasing personal and social benefits through the transformation of raw materials which culminates into the consumption of large quantities of electricity, the employment of cheap labor and the generation of tons of waste at the end of production (Chijioke, 2013; McGrath *et al.*, 2020). Nonetheless, sustainability issues relating to power differences around demographical categories such as class, ethnicity, gender, physical ability, or sexual orientation are neglected in TVET programs. Even though the aforementioned programs are core visions of TUs, not much

attention is given to the production of goods and services with social or environmental repercussions (Singh and Singh, 2017).

2.3 Empirical studies on sustainability reporting by HEI and stakeholder expectations

For the past two decades, sustainability reporting has been carried out through mediums such as integrated annual reports, sustainability reports and corporate websites by both profit and nonprofit making organizations to disseminate sustainability information (Amoako *et al.*, 2018; Nicolò *et al.*, 2021; Gamage and Sciulli, 2017). Organizations have, therefore, continuously published sustainability reports alongside financial reports. For example, in 2013, 64% of 4,900 companies sampled produced sustainability reports. This number increased to 75% in 2017 (KPMG International, 2017). Adams (2013b) claims that the International Integrated Reporting Committee on sustainability reporting is one of the most innovative bodies over the last two decades. Nevertheless, research indicates that there is a lag in HEI's sustainability report, despite its potential to strengthen the SDGs (Fonseca *et al.*, 2011; Gamage and Sciulli, 2017; Larrán Jorge *et al.*, 2019; Lozano, 2011). For instance, from the GRI database (2020), as of 2017, only 33 out of the 7,330 reports were from the HEI by the end of 2017 across the globe. Thus, out of the 30,586 universities worldwide, the number that has produced a GRI report is quite insignificant. Even the limited sustainability reporting practices available from the universities are revealed by literature as fragmented and at their infant stage (Gamage and Sciulli, 2017). However, in recent times, there seems to be an increased focus on sustainability reporting among HEIs.

Exiting studies provide the motivations for some universities which appear to be committed to sustainability reporting. For instance, Lozano *et al.* (2013) realized that although some HEI reports on sustainability, sustainability reporting is at its early stage as universities linger to be very traditional and reserved in their disclosure mandates. In Australia, Lee *et al.* (2013) found that many universities across the country lacked a vision or mission statement embedded in sustainability. However, this appears to have improved recently, Gamage and Sciulli (2017), in a content analysis of stand-alone reports realized that as most universities in Australia have sustainability as part of their mission and vision statements. Nonetheless, the contents and extent of the reportage among the universities varied.

Other researchers (such as Zorio-Grima *et al.*, 2018; Klußmann *et al.*, 2019) have also investigated the motivations for sustainability reporting. Zorio-Grima *et al.* (2018) explored the factors that lead to experience in sustainability reporting by public universities in Spain. The authors found that there is the integration of different factors based on innovation profile, political and internal factors. Similarly, Klußmann *et al.* (2019) use interviews to identify sustainability reporting factors among German universities. The authors posit that internal and external factors challenge German universities in initiating sustainability reporting.

To improve sustainability reporting among universities in Hong Kong, An *et al.* (2019) discovered that universities have set up web pages for sustainability disclosures on their websites. These web pages contain sustainability information on general dimensions, specific dimensions and stakeholder participation. Similarly, other studies (such as Gregson, 2010; Huber and Bassen, 2018; Adams *et al.*, 2018) have also focused on developing sustainability frameworks for better sustainability practices among HEIs. Gregson developed a conceptual framework for green education among TUs and argued that including stakeholder engagement in the decision-making of TUs is paramount for better sustainability education. Adams *et al.* (2018) propose a framework for designing and implementing sustainability and assert that the support and inspiration of the university president/vice-chancellor committed to senior leadership, as well as institutional culture are key motivations

for some HEI to be strongly committed to sustainability reporting while others do not have such motivations.

Unlike advanced economies, there are very limited studies on sustainability reporting among HEIs in emerging economies. The limited literature in these economies (such as [Yasbie and Barokah, 2018](#); [Hinson *et al.*, 2015](#)) confirms low sustainability reporting among HEIs. For instance, [Yasbie and Barokah \(2018\)](#) explored the sustainability reporting channels of universities in Indonesia. They discovered that sustainability reporting among Indonesian universities was far below those in advanced economies as none of the universities produced an integrated report. Similarly, [Hinson *et al.* \(2015\)](#) conducted a content analysis and concluded that even though none of the traditional universities in Ghana produced stand-alone sustainability reports, through university websites, sustainability performance was reported. Thus, while there are limited studies on sustainability reporting among HEIs in emerging economies, such a study on TUs is non-existing. In addition, research on sustainability reporting in both advanced and emerging economies has mainly focused on the contents of reporting. This study seeks to contribute to the limited sustainability reporting literature on HEIs in emerging economies and sustainability reporting research by adding stakeholders' voices to the sustainability reporting contents. We, therefore, explored the contents, extent and stakeholder perceptions on the sustainability reporting on the websites of all the 10 TUs in Ghana.

3. Research context

According to Ghana Tertiary Education Commission (GTEC), which is the regulatory body for tertiary education in Ghana, the tertiary education in Ghana consists of 291 accredited institutions ([GTEC, 2021](#)). The GTEC has grouped these 291 tertiary institutions into 15 categories: Chartered Private Tertiary Institution, Colleges of Agriculture, Distance Learning Institution, Private College of Education, Private Nurses Training Colleges, Private Polytechnic, Private Tertiary Institutions Offering Higher National Diploma (HND)/Degree Programs, Public Colleges of Education, Public Degree Awarding and Professional Institution, Public Nurses Training Colleges, Public Technical Universities, Public Universities, Regionally-Owned (West Africa) Tertiary Institution, Registered Foreign Institution and Tutorial College (see [Table 1](#)).

S/N	Category	Number of institutions
1	Chartered private tertiary institution	7
2	College of agriculture	4
3	Distance learning institution	2
4	Private college of education	4
5	Private nurses training college	22
6	Private polytechnic	1
7	Private tertiary institutions offering HND/degree programs	105
8	Public college of education	46
9	Public degree awarding and professional institution	7
10	Public nurses training college	55
11	Public technical university	10
12	Public university	14
13	Regionally-owned (West Africa) tertiary institution	1
14	Registered foreign institution	4
15	Tutorial college	9
	<i>Total</i>	<i>291</i>

Source(s): [GTEC \(2021\)](#)

Table 1.
Categories of
accredited tertiary
educational
institutions in Ghana

These tertiary educational institutions offer various degrees and diploma programs which are aimed at training and churning out manpower to contribute toward developing SDGs. However, these tertiary educational institutions which are progressing in their contributions toward the achievement of SDGs are not well reported to stakeholders. As a follow-up to the millennium development goals (MDGs), the SDGs have created a forum for countries and higher education institutions to collaborate. In the sense of the SDGs, HEI in low- and middle-income countries like Ghana should be able to place themselves to contribute to a knowledge-intensive economy (Chijioke, 2013; McGrath *et al.*, 2020). This can be accomplished by establishing niche areas of science, teaching and community involvement, as well as investigating the variety of technical devices available to help their institutions of higher learning become more innovative (McGrath *et al.*, 2020).

Globally, TUs have seen significant shifts from societal expectations of TVET graduates; a growing expectation exists for TUs to help provide practical solutions to immediate and long-term sustainability challenges (Alexa *et al.*, 2020; Gregson, 2010). Sustainable research at TUs has evolved gradually in response to the call for sustainability made by various international conventions and stakeholders, yet, these fragmented studies are not enough as more evidence is needed on stakeholder perceptions on sustainability practices of TUs. Thus, even though few studies have examined universities' roles in enhancing sustainability-oriented competencies (Sady *et al.*, 2019), not many examine the approach TUs take to integrating sustainability into sustainable development (Alexa *et al.*, 2020). Similarly to other organizations, one way TUs could adopt in responding to pressure from stakeholders is how sustainability is reported on universities' websites (Amoako *et al.*, 2018, 2022).

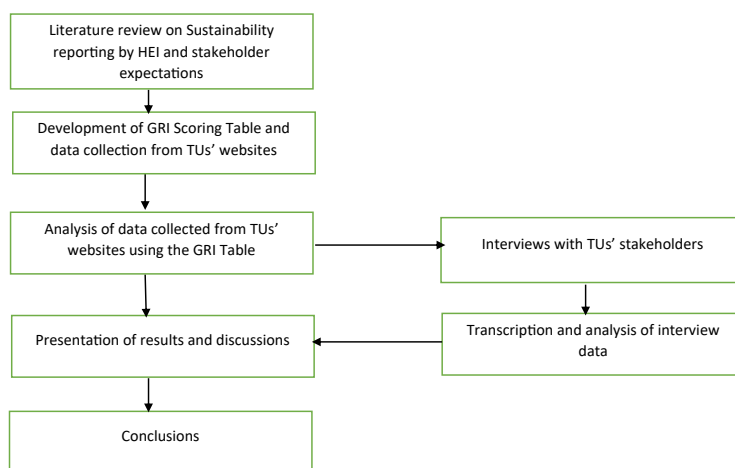
Unlike Hinson *et al.* (2015) who focused on sustainability reporting of traditional universities in Ghana, the present study is on sustainability reporting of TUs in Ghana. This is relevant because as at the time of Hinson *et al.*'s study, all the TUs in Ghana were polytechnics until 2013, when the then Government of Ghana deemed it relevant to upgrade the polytechnics into TUs. The legislation was enacted to that effect during the 2016/17 academic year. The conversion of polytechnics to universities was aimed at pursuing better training in TVET. Another aim of the conversion was to avail several progression opportunities for technical and vocational post-secondary education. Second, Hinson *et al.*'s study ignores stakeholders' perception on the websites' disclosures of the sampled HEIs in Ghana. To fill this gap, we focused on TUs, rather than traditional universities. Also, we have extended Hinson *et al.*'s study by engaging stakeholders to appreciate their perceptions on the extent of websites disclosures of the TUs in Ghana. This is important due to the unique role that stakeholders of TUs play in sustainable development (i.e. poverty reduction) through the provision of relevant hands-on knowledge and skills to prepare students and trainees to be economically productive members of society (Orbeta, 2022).

4. Methodology

4.1 Research approach and design

Figure 1 presents the methodology that underpins this study. The aim of this paper is to explore stakeholder perceptions on the nature and extent of sustainability reporting on the websites of TUs in Ghana. Therefore, as it could be seen from Figure 1, we used content analysis in exploring what is reported on the websites of all the 10 TUs in Ghana. This was followed by interviews to obtain stakeholder perceptions on the extent of sustainability reporting on the TUs' websites.

From Figure 1, the merger of the two qualitative instruments is intended to provide detailed insights on the extent of sustainability reporting and the perception of stakeholders on these website disclosures. Several studies (Amoako *et al.*, 2018; Higgins *et al.*, 2018; Mendes *et al.*, 2019) have revealed that there is no ideal approach to analyzing the contents of



Source(s): Authors' construct (2022)

Figure 1.
Research methodology
of the study

sustainability reports. Rather, content analyses need to consider the uniqueness of the research's context and objectives. According to Krippendorff (2004), content analysis is "a research technique for the objective, systematic and quantitative description of the manifest content of communication" p. 19. Content analysis is a widely used method to analyze the sustainability reporting contents of organizations (Landrum and Ohsowski, 2018). It has been adopted previously to examine brochures, magazines, advertisements, websites as well as mission and vision statements.

Content analysis could be carried out quantitatively or qualitatively. Be it qualitative or quantitative, content analysis has also been viewed as "the most commonly used to assess organizations' social and environmental disclosures" (Milne and Adler, 1999, p. 237). In this paper, we adopted a qualitative approach to content analysis of sustainability disclosures on the websites of TUs in Ghana. Even though qualitative content analysis is noted for the involvement of huge data (Mostafaei and Hosseini, 2021; Landrum and Ohsowski, 2018), it was chosen for this study because the number of TUs in Ghana is small (i.e. 10), and the application of a qualitative approach for this research was deemed feasible and more appropriate as the study explores the extent of the websites disclosures and the details of what is reported.

4.2 Data collection

The data for this study were collected from the TUs' websites between August 5, 2020 and December 12, 2020, and updated on January 15 to February 10, 2022. As part of the data collection process, a feasibility study was conducted by the authors on the disclosures on TUs' websites. It was discovered that there were no standalone sustainability reports uploaded on the TUs' websites. Consequently, the search focused on web menus related to the TUs' administration, governance, accountability, ethics policies, finance and sustainability projects. This was due to the lack of stand-alone sustainability reports on the websites of the TUs. To ensure validity and consistency of data collection process, each author analyzed one to three of the content analysis frameworks (See Table 2) across the websites of all the 10 TUs.

We consider whether a cross-sectional sample of disclosures on the 10 TUs in Ghana related to those 56 indicators from Fonseca's sustainability framework (see Table 2). Since

Serial number	Categories	Indicators
1	Organization profile and governance	5
2	Reporting approach	4
3	Economic performance	3
4	Environmental performance	8
5	Social performance	5
6	Human rights issues	6
7	Society issues	5
8	Research	7
9	Curriculum and teaching	7
10	Green buildings and procurement	6
	Total	56

Table 2.
Content analysis
framework

Source(s): Adopted from [Fonseca \(2010, p. 26\)](#)

this is an exploratory study, we adopted a simple tick-box approach, rather than using a more complex rating framework. Thus, like any other exploratory study, our aim was to depict the nature of current sustainability reporting practices of the TUs as a bedrock for further studies that may refine and expand on the findings ([Albertini, 2019](#)). Tick-boxes also allow for greater objectivity ([Hinson et al., 2015](#)). In total, about 550 web pages and 56 documents were examined.

For triangulating the data collected from the websites of the TUs, 18 face-to-face interviews were conducted in two TUs; one of the two TUs with the highest score and the other with the least score (See [Table 3](#) for interviewees' details). We adopted this sampling technique to get a balanced opinion from the stakeholders. The interviews were conducted from January 4 to March 7, 2022 and participants of the interviews comprised internal and external stakeholders of the TUs. The internal stakeholders comprised management, teaching staff, non-teaching staff and students, whereas the external stakeholders were parents, alumni, regulators, affiliate companies and bankers. Again, since all the TUs had similar reporting trends (See [Tables 4 and 5](#)) and scored far below 50%, there was a high tendency to get similar results, hence choosing two out of the 10 TUs.

For a balanced opinion, we categorized the participants into external and internal stakeholders. Within the TUs, senior management (i.e. top decision-makers), students and staff (teaching and non-teaching) were involved because of their positions as key stakeholders. External stakeholders chosen for this study were parents, alumni,

Stakeholder category	No. of participants	Positions and codes	Average interview duration
Internal stakeholders	2	Top level management, (Senior Administrator 1 and 2)	34 min
	2	Teaching staff (Teaching staff 1 and 2)	41 min
	1	Non-teaching staff	34 min
	3	Students (Student 1,2 and 3)	
External stakeholders	3	Parents (Parent 1,2 and 3)	35 min
	3	Alumni (Alumni 1,2 and 3)	32 min
	1	Regulator	47 min
	2	Affiliate companies	33 min
	2	Bankers	45 min

Table 3.
Research participants'
affiliations, positions
and interview duration

Source(s): Authors' construct (2022)

Technical university	Mode of reporting on websites		Websites of technical universities in Ghana
	Standalone sustainability/annual report	Drop down menus	
Sunyani Technical University (STU)	–	✓	<hr/>
Tamale Technical University (TATU)	–	✓	
Kumasi Technical University (KSTU)	–	✓	
Accra Technical University (ATU)	–	✓	
Cape Coast Technical University (CCTU)	–	✓	
Koforidua Technical University (KTU)	–	✓	
Ho Technical University (HTU)	–	✓	
Takoradi Technical University (TTU)	–	✓	
Bolgatanga Technical University (BTU)	–	✓	
Wa Technical University (WTU)	–	✓	
Note(s): – Not available; ✓-Available			Table 4. Technical universities mode of sustainability reporting
Source(s): Authors' construct (2022)			

regulators, lenders (bankers) and industry affiliates. The choice of these stakeholders were based on their identification as key stakeholders in previous studies (such as [Ceulemans et al., 2020](#); [Moura et al., 2019](#)). In selecting internal stakeholders, management and students were purposively sampled; participants were selected based on their position within the sampled TUs and their knowledge of the contents on the TUs' websites. Nonetheless, the management and staff members who were first interviewed suggested other experts to strengthen the inclusion of key informants in the study (snowball sampling) from those directly involved in sustainability policy-making. The president and the vice president of students' representative councils (SRC) of two sampled TUs were selected based on their availability to participate in this study. Even though we should have interviewed four students (two SRC presidents and two SRC vice-presidents), one of them was not available due to ill health.

For external stakeholders, we conducted telephone interviews with the parents of the three students who participated in the study. This was to provide a common ground for analysis. We selected the alumni based on the convenience of the lead author's acquaintance with the participants. We chose the bankers and affiliate companies based on snowballing, where an interviewee recommends another participant based on the information needed. In our case, management of the two sampled TUs recommended seven bankers and ten affiliate institutions. We then sampled these institutions conveniently. Nonetheless, two bankers and two affiliate institutions were willing to participate in the study.

Even though there were cases where some participants turned down our request for interviews, most of the interviewees were relatively easy to reach and willing to participate which was a positive aspect of the process. To begin with each interview, the researcher (lead) took about five minutes to explain the purpose of the interview (i.e. stakeholder perceptions on the website disclosures of TUs) to the interviewees in order to ensure that the researcher was at the same level with the interviewee. We recorded and transcribed verbatim, the in-depth interviews.

4.3 Data analysis

To analyze the research data with the tick-box approach, we proceeded with direct quotations from the websites of the TUs (See [Section 5](#)). In this study, we adopted the GRI for the analysis of HEI reporting to reveal critical gaps in website disclosures of TUs in Ghana. Second, the GRI has been observed to be a potential framework that synchronizes the various approaches to sustainability reporting of HEI ([Berzosa et al., 2017](#); [Fonseca et al., 2011](#); [Hinson et al., 2015](#); [Lozano, 2006](#)). Following other studies (such as [Hinson et al., 2015](#)) on universities'

Table 5.
Titles of drop-down menus on technical universities' websites

Name of technical university	Headings of drop-down menus	Sunyani Technical University (STU)	Cape coast Technical University (CCTU)	Koforidua Technical University (KTU)	Ho Technical University (HTU)	Takoradi Technical University (TTU)	Bolgatanga Technical University (BTU)	Waikanae Technical University (WTU)	Tamale Technical University (TTU)	Kumasi Technical University (KSTU)	Accra Technical University (ATU)	Percentage (% of universities with heading)
	Home About us	Home About us	Home About us	Home About us	Home About us	Home About us	Home About us	Home About us	Home About us	Home About us	Home About us	100%
	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	Academics Admissions Students	100%
	Staff Alumni	Staff Alumni	Staff Alumni	Staff Alumni	Staff Alumni	Staff Alumni	Staff Alumni	Staff Alumni	Staff Alumni	Staff Alumni	Staff Alumni	100%
	News and Events Research	News and Events Research	News and Events Research	News and Events Research	News and Events Research	News and Events Research	News and Events Research	News and Events Research	News and Events Research	News and Events Research	News and Events Research	90%
												60%
												30%
												30%
												30%
												20%
												20%
												10%
												10%
Total number of headings		9	8	10	7	9	5	7	7	7	6	

Note(s): – Not available
Source(s): Authors' construct (2022)

sustainability reporting analysis, we adopted a tick-box framework of [Fonseca et al. \(2011, p. 26\)](#), which was inspired by the GRI guidelines and campus sustainability assessment tools. As indicated in [Table 1](#), [Fonseca et al. \(2011\)](#) framework has ten categories with 56 indicators [Fonseca et al. \(2011, p. 26\)](#).

Specifically, this study adopts the GRI guidelines and campus sustainability assessment tools in evaluating the sustainability reporting on the websites of TUs in Ghana which in turn will contribute to providing insights on the feasibility of applying those guidelines to TVET within the emerging economy context. The key motivation for studies on universities' sustainability reporting (such as [Caputo et al., 2021](#); [Fonseca et al., 2011](#); [Hinson et al., 2015](#)) which used the GRI guidelines is two-fold (1) the GRI is more comprehensive and has been globally experimented compared to other sustainability disclosure metrics; (2) it is frequently updated to include the crucial matters perceived as important in sustainability reporting. The GRI framework is now the most widely used sustainability guidelines in numerous sectors.

In analyzing the data gathered from the interviews and the websites disclosures, separate categories describing how often the stakeholders visited and perceived the websites disclosures of the TUs in Ghana were revealed. Seven steps were undertaken in the analysis of the data, namely, (1) analyzing the transcripts for content familiarity; (2) assembling the participant responses for each question; (3) compressing the responses to develop emerging themes; (4) using the emerging themes to categorize similar answers; (5) the comparison of the several categories; (6) providing labels for each category; and (7) comparing and contrasting the various categories ([Ornek, 2008](#)). By adopting this approach, we made sense of how stakeholders perceived the sustainability disclosures on the websites of the sampled HEIs (See Appendix for coding).

5. Results and discussions

The aim of this paper is to explore stakeholder perceptions on the nature and extent of sustainability reporting on the websites of TUs in Ghana. The findings in this section are presented in three tables, namely, [Table 4](#) – the mode of sustainability reporting of TUs in Ghana, [Table 5](#) – lists of drop-down menus on Ghana's TU's websites, and [Table 6](#) – Framework's categories and indicators addressed by TUs. These tables allow easy comparison and benchmarking of the GRI indicators ([Fonseca et al., 2011](#)).

5.1 Mode of sustainability reporting

From [Table 4](#), none of the 10 TUs produce a standalone annual report on sustainability. Rather, it is mandatory for vice-chancellors in Ghana to report to convocation at least once a year on the sustainability performance of universities ([Hinson et al., 2015](#)). Thus, unlike some of traditional universities in Ghana, these standalone reports were not available to the public on the websites of the TUs. Nonetheless, as asserted by [Fonseca et al. \(2011\)](#) on traditional universities, the disclosures on the websites of the TUs were consistent with the crucial aspects of sustainability. Therefore, in the absence of the standalone annual reports, sustainability disclosures found on all the TUs' websites were extracted from drop-down menus and the few automatic scrolling notices on the various websites (See [Table 5](#)).

We realized some level of convergence on the website's disclosure patterns. Thus, several similarities were found regarding the headings of the drop-down menus. From [Table 5](#), all the TUs had the following headings; Home, About (us), Academics, Admissions, with nine out of ten reporting having a heading "students". The analysis shows no momentous variations in sustainability disclosures of TUs on environmental, social and economic dimensions.

Table 6.
Framework of sustainability dimension and indicators addressed by technical universities

Technical universities		Sunyani Technical University (STU)	Cape Coast Technical University (CCTU)	Koforidua Technical University (KTU)	Ho Technical University (HTU)	Takoradi Technical University (TTU)	Bolgatanga Technical University (BTU)	Wa Technical University (WTU)	Tamale Technical University (TTU)	Kumasi Technical University (KSTU)	Accra Technical University (ATU)	Proportion of Technical universities reporting
<i>1. Organizational profile and governance</i>												
Organizational profile and governance		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Statement from the president		-	-	-	-	-	-	-	-	-	✓	10%
Description of the organization		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Governance structure or processes		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Commitment to external sustainability initiatives		-	-	-	-	-	-	-	-	-	-	0%
Stakeholder engagement		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
<i>2. Reporting approach</i>												
Reporting period		-	-	-	-	-	-	-	-	-	-	0%
Report scope and boundary		-	-	-	-	-	-	-	-	-	-	0%
Reporting standard guidelines		-	-	-	-	-	-	-	-	-	-	0%

(continued)

Technical universities	Sunyani Technical University (STU)	Cape Coast Technical University (CCTU)	Koforidua Technical University (KTU)	Ho Technical University (HTU)	Takoradi Technical University (TTU)	Bolgatanga Technical University (BTU)	Wa Technical University (WTU)	Tamale Technical University (TTU)	Kumasi Technical University (KSTU)	Accra Technical University (ATU)	Proportion of Technical universities reporting
Third-party statement (external assurance)	-	-	-	-	-	-	-	-	-	-	0%
<i>3. Economic performance</i>											
Economic performance	-	-	-	-	-	-	-	-	-	-	0%
Contribution to local community	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Indirect economic impact	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
<i>4. Environmental performance</i>											
Material	-	-	-	-	-	-	-	-	-	-	0%
Energy	-	-	-	-	-	-	-	-	-	-	0%
Water	-	-	-	-	-	-	-	-	-	-	0%
Biodiversity	-	-	-	-	-	-	-	-	-	-	0%
Emissions, effluents and waste	-	-	-	-	-	-	-	-	-	-	0%
Compliance with environmental legislation	-	-	-	-	-	-	-	-	-	-	0%
Transportation	✓	✓	-	-	-	-	-	-	-	-	20%

(continued)

Websites of technical universities in Ghana

Table 6.

Table 6.

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Technical universities	Sunyani Technical University (STU)	Cape Coast Technical University (CCTU)	Koforidua Technical University (KTU)	Ho Technical University (HTU)	Takoradi Technical University (TTU)	Bolgatanga Technical University (BTU)	Wa Technical University (WTU)	Tamale Technical University (TTU)	Kumasi Technical University (KSTU)	Accra Technical University (ATU)	Proportion of Technical universities reporting
Environmental expenditure	-	-	-	-	-	-	-	-	-	-	0%
<i>5. Social performance</i>											
Employment	-	-	✓	-	-	-	-	-	-	✓	20%
Labor/management relations	-	-	✓	-	-	-	-	-	-	✓	20%
Occupational health and safety	✓	✓	✓	-	-	-	-	-	✓	✓	50%
Training and education	-	-	-	-	-	-	-	-	-	-	0%
Diversity and opportunity	✓	✓	-	-	-	-	-	-	-	✓	30%
<i>6. Human rights issues</i>											
Investment and procurement	-	-	-	-	-	-	-	-	-	-	0%
policy	-	-	-	-	-	-	-	-	-	-	-
Non-discrimination	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	100%
Freedom of association and collective bargaining	✓	✓	-	-	-	-	-	-	-	-	20%
Child labor and forced labor	-	-	-	-	-	-	-	-	-	-	0%

(continued)

Technical universities											
Categories and indicators	Sunyani Technical University (STU)	Cape Coast Technical University (CCTU)	Koforidua Technical University (KTU)	Ho Technical University (HTU)	Takoradi Technical University (TTU)	Bolgatanga Technical University (BTU)	Wa Technical University (WTU)	Tamale Technical University (TTU)	Kumasi Technical University (KSTU)	Accra Technical University (ATU)	Proportion of Technical universities reporting
Security practices	-	-	-	✓	-	-	-	-	-	-	10%
Indigenous rights	-	-	-	-	-	-	-	-	-	-	0%
<i>7. Society issues</i>											
Impacts on community	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Corruption	-	-	-	-	-	-	-	-	-	-	0%
Public policy	-	-	-	-	-	-	-	-	-	-	0%
Anti-competitive behavior	-	-	-	-	-	-	-	-	-	-	0%
Compliance with general legislation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
<i>8. Research</i>											
Policies related to sustainability in research	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Research centres/labs related to sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Sustainability related research programs	-	-	-	-	-	-	-	-	-	-	0%

(continued)

Websites of technical universities in Ghana

Table 6.

Table 6.

Technical universities	Sunyani Technical University (STU)	Cape Coast Technical University (CCTU)	Koforidua Technical University (KTU)	Ho Technical University (HTU)	Takoradi Technical University (TTU)	Bolgatanga Technical University (BTU)	Wa Technical University (WTU)	Tamale Technical University (TTU)	Kumasi Technical University (KSTU)	Accra Technical University (ATU)	Proportion of Technical universities reporting
Incentives to sustainability research	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Funds and grants for sustainability research	-	-	-	-	-	-	-	-	-	-	0%
Academic production related to sustainability	-	-	-	-	-	-	-	-	-	-	0%
Sustainability related research projects	✓	✓	✓	✓	✓	-	✓	✓	✓	✓	100%
<i>9. Curriculum and teaching</i>											
Policies related to sustainability in curriculum	-	-	-	-	-	-	-	-	-	-	0%
Courses related to sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Students taking sustainability related courses	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Sustainability literacy assessment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%

(continued)

Technical universities	Sunyani Technical University (STU)	Cape Coast Technical University (CCTU)	Koforidua Technical University (KTU)	Ho Technical University (HTU)	Takoradi Technical University (TTU)	Bolgatanga Technical University (BTU)	Wa Technical University (WTU)	Tamale Technical University (TTU)	Kumasi Technical University (KSTU)	Accra Technical University (ATU)	Proportion of Technical universities reporting
Degree programs related to sustainability	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	100%
Non-curricular teaching initiatives related to sustainability	-	-	-	-	-	-	-	-	-	-	0%
Scholarships offered to sustainability related education	-	-	-	-	-	-	-	-	-	-	0%
<i>10. Green buildings and procurement</i>											
Green buildings and renovations	-	-	-	-	-	-	-	-	-	-	0%
Green spaces	-	-	-	-	-	-	-	-	-	-	0%
Food services	-	-	-	-	-	-	-	-	-	-	0%
Recycled paper	-	-	-	-	-	-	-	-	-	-	0%
Green electronics	-	-	-	-	-	-	-	-	-	-	0%
Green furniture	-	-	-	-	-	-	-	-	-	-	0%
Total score	21/56	22/56	21/56	19/56	18/56	16/56	18/56	18/56	19/56	22/56	
Total percentage reported	37.5%	39.3%	37.5%	33.9%	32.1%	28.6%	32.1%	32.1%	33.9%	39.3%	
Note(s): – Not reported; ✓-reported											
Source(s): Authors' construct (2022)											

Websites of technical universities in Ghana

Table 6.

5.2 Sustainability reporting contents of TUs

This section presents the findings and discussions on the contents of TUs sustainability reporting. The findings and discussions are based on the content of the GRI guidelines and campus sustainability assessment tools for sustainability reporting of higher education (see [Table 6](#)). However, the dimensions are arranged in order of scoring; the dimension with the highest reporting being first and the dimension with the lowest reporting being last.

5.2.1 Organizational profile and governance. The first category of sustainability on Fonseca's framework is organizational enquiry profile and governance. Coincidentally, it is the category with the highest disclosures on the websites of TUs in Ghana. Thus, out of the six indicators, all the 10 TUs at the time of data collection made available information on four of these indicators: their organizational profile, description of the organization, governance structure or processes and stakeholder engagement. However, only one TU reported on commitment to external sustainability initiatives in their vision statement:

To become a top-notch technical university for the provision of career-focused, practically-oriented and entrepreneurially-inclined higher and middle level manpower training for the socio-economic development of Ghana and to contribute to the global sustainable development (STU).

The reporting rate on organizational profile and governance among TUs in Ghana appear better compared to [Hinson et al. \(2015\)](#) who reported that traditional universities in Ghana report fully on three out of the six indicators on their websites and in their annual reports. This could imply an improvement in the sustainability reporting among HEIs in Ghana, as it has been seven years since Hinson's study. Nonetheless, compared to studies on traditional universities, such as [Fonseca et al. \(2011\)](#) in Canada, [Hinson et al. \(2015\)](#) in Ghana and [Gamage and Sciuilli \(2017\)](#) in Australia, who discovered that most universities have a statement from the president, only Accra Technical University (10%) had a statement from the vice-chancellor on their website. This was confirmed by an interviewee that TUs in Ghana may not be under pressure to make such disclosures or perhaps, they do not see the need to publish statements from the vice-chancellors on their websites.

5.2.2 Economic performance. The second dimension with the highest coverage is the economic dimension; all the TUs reported on three of the four indicators under this dimension. There were disclosures on the impact of the TUs on the contributions to the community and indirect economic impacts. Most of these impacts are said to be attained through the application of TVET education, which is aimed at equipping students with entrepreneurship skills. Websites disclosures on economic contributions of some of the TUs are,

The center, through its network of partners within the university community and external analogous institutions, serves as a catalyst in improving service delivery to existing and future businesses. It specifically helps students, community based organizations, young entrepreneurs and nascent entrepreneurs to start-up businesses. (TATU).

The polytechnic [currently technical university] developed a strategic plan to guide its operation with the vision to become "a world-class center for applied technology and providing career-focused education for rural poverty reduction and national development" (WTU).

There were no evidence of economic performance on TUs' websites as usually, information on economic performance is traced to the financial reports of the organization ([Bradbury et al., 2020](#); [Uyar, 2019](#); [Majumdar and Sinha, 2021](#)). Since none of the TUs upload an annual report (including financials) on their websites, no information on economic performance was found. A senior administrator in one of the TUs explained,

We are not mandated to publish our financial reports on the university's website. However, we report to the University Governing Council and submit copies of the annual report to the Ministry of Education through GTEC (Administrator 2).

The opinion of the administrative staff indicates the crucial role that regulations could play in ensuring quality sustainability disclosures of the TUs in Ghana. Similar to findings of other studies (such as [Amoako et al., 2022](#)), the TUs may not voluntarily disclose to the public what they deem as sensitive information if not mandated to do so.

5.2.3 Curriculum and teaching. The third highest category with disclosures on its indicators is that of curriculum and teaching. All the TUs whose websites were available disclosed information on courses related to sustainability, Students taking sustainability-related courses, sustainability literacy assessment and degree programs related to sustainability. However, no information was disclosed on initiatives related to sustainability and Scholarships offered to sustainability-related education. A senior administrator indicated,

We all know that teaching and research are our mission as a university. We need to attract new students by informing them through various media such as radio and television adverts as well on our website that we have cutting-edge programs which provide the needed skills for the industry (Senior Administrator 1).

Analyzing the narratives from the above interviewee, the high disclosures under this dimension are not surprising as teaching and research are the core mandate of HEIs. Some TUs explained,

Our creed of integrity, creativity and excellence will continue to guide our governance in providing hands-on and competency-based research training that helps in solving industrial challenges that we face as a country (ATU).

The institution values creativity, determination, teamwork, commitment, integrity, honesty, innovation and fairness and strives to integrate these values into its teaching, research and business practices (KTU).

Another interesting trend on the disclosures on TUs' websites is on the collaboration with the industry. These collaborations are very important to TUs as they aim at rendering CBT which is based on practical training through usually industrial attachments and laboratory works.

TUs are to be more focused in the delivery of CBT. One way to achieve this is to liaise with industry for students training and attachment placements. Therefore, even though we are not under any obligation to publish on industry collaborations, we need to demonstrate to regulators and public that we are actually doing the right thing (Senior Administrator 1).

It was therefore not surprising that eight of the ten TUs reported on collaborations with industry as follows:

Bolgatanga Technical University is engaged in a number of collaborations. The university has collaborations with the University of Ouagadougou, Burkina Faso on English language immersion training and industrial attachment including research for their students ... (BTU)

5.2.4 Research. The dimension with the fourth wider coverage is on the indicators under research. All the TUs had information regarding four of the seven indicators, namely, policies related to sustainability in research, research centers and laboratories related to sustainability, incentives to sustainability research and sustainability related research projects. Indicators on research, other than these, had no information on the websites of the TUs. Similar to the comments on curriculum and teaching, a head of research in one of the sampled TUs explained,

You know very well that research is a core mandate of every tertiary institution. As such the university needs to demonstrate her efforts toward this direction as well as the results of these efforts (Teaching staff 2).

5.2.5 *Society issues.* All the TUs disclosed on the social impact on community and compliance with general legislation with most presenting on the TUs' Act and regulatory bodies such as CTNET and the national council for tertiary education (GTEC). Thus, various TUs are subject to a level of central control.

The Technical University Act 2016, (Act 922) converted Kumasi Polytechnic to the present Kumasi Technical University with the aim of providing higher education in engineering, applied arts, science technology-based disciplines, technical and vocational training. (KSTU)

According to previous studies (such as [An et al., 2020](#); [Balluchi et al., 2020](#)), there could be specific disclosures with mandatory requirements for stakeholders such as those on the TUs having regulatory backing above. As indicated in the above quotation, all the TUs disclosed that they were regulated by the TU Act, 2016 (Act 922), with monitoring from regulatory bodies (such as GTEC, CTNET and TUs governing councils). However, interviews with senior administrators in the sampled TUs indicated that the information on the government approval and legal backing of TUs were not mandatory but voluntary. This is because the TUs see the need to do so as a way of gaining stakeholder legitimacy:

We are not under any obligation to post on our website that we have the legal backing to operate as a university. However, stakeholders such as prospective students and donor agencies may be interested in knowing if the institution is accredited by the government (Senior Administrator 1).

The university needs the public to have confidence in us. One way of pursuing that agenda is by informing them that we are operating under the TUs Act with all our programs accredited by GTEC (Senior Administrator 2).

5.2.6 *Human rights issues.* The sixth indicator on the proposed framework of [Fonseca et al. \(2011\)](#) is on human rights issues. The TUs in Ghana do not disclose information on Child labor and forced labor, as well as indigenous rights. However, there was evidence that all TUs disclosed information related to non-discrimination with most of them stated this in the course of describing their core mandates as TUs.

Ho Technical University is a secular and non-partisan public institution. Admissions and academic awards are based on merit and not ethnicity, race or nationality, religious affiliation or beliefs, physical disabilities, or gender. (HTU)

5.2.7 *Social performance.* Disclosures on social performance were ranked as seventh in terms of the disclosure on websites of the TUs. Five TUs disclosed their occupational health and safety which was mainly on measures put in place against the spread of the COVID-19 pandemic. Another indicator of the social performance of the GRI is that of diversity and opportunity. Out of the ten TUs in Ghana, three had information on diversity and opportunity, namely, STU, CCTU and ATU. However, only STU and CCTU mentioned something on freedom of association and collective bargaining which was uploaded in their human resources policies.

We provide equal opportunities to foster access to quality higher education to all qualified persons irrespective of religious and political persuasion, ethnicity, gender, social status and physical ability. (KSTU)

Besides reporting on the activities of the security unit under the student affairs menu, only HTU and TATU describe various security activities that take place on campus concerning parking, fire alarms and patrol guards:

The Ho Polytechnic campus is among the safest tertiary campuses in the country. Parking facilities are monitored 24 hours a day with the aid of security personnel. Fire alarm and fire extinguishers are located around campus. Guards are always alert to protect life and property. Safety is everyone's responsibility. (HTU)

During his investiture on October 18, 2019, the VC of Takoradi Technical University in his speech indicated that,

Our highly successful alumni and industry partners are working hand-in-hand with our faculties, staff and students in order to create a network of engagement that would impact our surroundings nationally and internationally. We will also deepen our focus on the diversification of faculty and staff, for we know that excellence requires inclusiveness and diversity. (TATU)

5.2.8 Environmental performance. Environmental performance has the highest number of indicators which included material, energy, water, biodiversity, emission, effluents and water, compliance with environmental legislation, transportation and environmental expenditure (See [Table 3](#)). Even though, environmental sustainability is listed as a part of HTU and WTU's core values, none of the indicators of GRI was disclosed, making it one of the categories with the least disclosures. Thus, all the TUs in Ghana scored zero in all the eight indicators of environmental performance except Sunyani and Kumasi which uploaded their transportation policies.

Academic and social interactions within the polytechnic [now technical university] are governed by the principles of fair play, justice, honesty, moral rectitude and respect for authority, human rights and the environment. (HTU)

Our findings on environmental performance disclosures of TUs in Ghana contradicts the findings of [Fonseca et al. \(2011\)](#) that "Among the most commonly disclosed indicators are those in connection with emissions, effluents, wastes, energy, recycled paper, green buildings, green spaces, transportation, and water" p. 30.

Upon enquiry on the lack of environmental disclosures, an administrator explained that,

Unlike mining companies that is known for destroying water bodies and polluting the environment, we are just an educational institution . . . we teach, research and offer community service. I am therefore not surprised that we do not upload much information on environment (Senior Administrator 2).

5.2.9 Reporting approach and green buildings and procurement. Similar to the zero disclosures on environmental sustainability, Reporting approach and green building and procurement had no disclosure on the websites of TUs in Ghana. On reporting approach, which covers the reporting period, report scope and boundary, reporting standards and guidelines and third party-related statements, there was no information on the TUs' websites on any of these indicators. This could be that, unlike non-TUs who upload annual reports on their websites ([Caputo et al., 2021](#); [Hinson et al., 2015](#); [Fonseca et al., 2011](#); [Gamage and Sciulli, 2017](#)), websites of TUs in Ghana did not have annual reports. Meanwhile, according to International Financial Reporting Standards (IFRS), the globally accepted financial reporting standard, annual reports are required to contain all four indicators under the reporting approach ([Hinson et al., 2015](#)). In the case of TUs in Ghana, information was disclosed on institutional websites via drop-down menus and automatic scroll menus (See [Table 2](#)). Therefore, the absence of annual standalone reports on TUs' websites implies the absence of reporting approach indicators.

5.2.10 Stakeholder perceptions on TUs sustainability reporting. We solicited the opinions of both external and internal stakeholders on their impressions from the university websites and if they get the information (sustainability), they want from the TUs' websites. Consequently, stakeholders were picked from two TUs and the results are presented in this section.

5.2.10.1 External stakeholders' perceptions on website disclosures. In seeking the perceptions of stakeholders on the sustainability disclosures on TUs' websites, it was

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discovered that eight out of the 11 external stakeholders were not interested in the sustainability disclosures on the websites of the TUs. An alumni narrated,

My brother, to be honest with you, the last time I visited the university's website was three years ago when I wanted to apply for admission for my kid sister and wanted to find out the new programs the university had introduced (Alumnus 1).

Even though one out of the three alumni, a lecturer, showed interest in the disclosures on his former TU's websites and pointed out that he is not impressed with the extent of reporting compared to his current place of work:

I visited my alma mater's website and was not impressed at all with the scanty information there. Compared with the website of the university where I teach in the UK, my alma mater's website was nothing to write home about. [Alumnus 3]

Another group of external stakeholders who were interviewed on their expectations from the TUs' websites were parents. Even though, some parents visit the website of TUs when seeking for admission, to a large extent, they had little interest in the disclosures on the university's website. Thus, out of the three parents interviewed, a parent was illiterate, whilst the remaining two, who were literate were just not interested or lack the skills to surf on the Internet.

Unfortunately, I do not remember ever searching for information from the website of my ward's university because I am not sure if I need anything there (Parent 2).

In fact, as for the university's [one of the TUs] website, I have never visited there. My son did the application for admission by himself. (Parent 1)

A mother who is a petty trader also expressed her opinion:

I have no idea of what is on the website of this university. Even though I am literate, I belong to the born before computer class [computer illiterate] and can barely access the internet. [Parent 3]

It was mentioned earlier that TUs usually have industry affiliates for the purpose of collaborations. Therefore, these corporate bodies have a critical role to play in TU education. The researchers therefore sought their views on the disclosure on the TUs' websites. Even though both of them showed interest in the website disclosures, they were not impressed with the level of disclosures. This is what one of them said,

I once visited the university's website to see the activities of a department and the profile of lecturers when we wanted to sign a memorandum of understanding with the university for the admission of interns, unfortunately, there were not much information available (Affiliate Company 2).

On the issue of how regular stakeholders visit the websites of TUs in Ghana, regulators position was indifferent from the other external stakeholders, as they could not give an impression on the TUs' website disclosure. Nonetheless, regulators might visit these websites if they have a reason to do so:

Besides the 10 TUs, we regulate about 16 traditional universities, over 40 private tertiary educational institutions and more than 50 colleges of education, health and nursing. Therefore, we cannot visit the websites of all these institutions unless we have reason to do so. For instance, if it comes to our notice that a university is advertising an unaccredited program, we may have to confirm that from its websites for appropriate sanctions to be imposed (Regulator).

We also solicited the opinion of financial institutions that deal with the TUs. Management of the two banks who were interviewed claimed not to have much interest on the disclosures on the TUs' websites as they are aware that the TUs do not publish annual financial reports on their websites. One of them explained as follows:

Our interest lies in the financial disclosures and project proposals which are not available on the websites of the TUs. For instance, we had to make a decision on a proposal to construct a student's hostel on BOT [build-operate and transfer]. We needed information on students' population and current hostel fees which is not available on the websites of the TUs in question. We had to request for it directly from the university's management. (Banker 2)

5.2.10.2 Internal stakeholders' perceptions on website disclosures. In contrast to external stakeholders, to a large extent, the eight internal stakeholders who were interviewed demonstrated interest in the disclosure on the TUs' websites. Nonetheless, all of them were not impressed with the extent of disclosures. Some students who were interviewed explained,

Sir, please as for the university's website, I go there to register courses for the semester and also to check my results. There is not much information there. Most information that is needed are sent through the departmental and class WhatsApp pages through the various class representatives. (Student 1)

Once a while, I visit there for update on fees and other information. However, not all the information is available on the website. For instance, a friend who recently got admission called for me to check on the current BTech [bachelor of technology] fees but I could not get the update from the university's website. (Student 2)

I think management should do more to improve upon the school websites because most often, you do not get other information that you want. I remember last year my former roommate wanted to see if his name was part of the graduation list, he had to send me to his former department for me to check for him. (Student 3)

It could be inferred from the above that besides the checking of examinations results and registration, students perceive the extent of the TUs website disclosures as limited and not updated to reflect their information needs. Both teaching and non-teaching staff were not impressed with the extent of disclosures on their research and teaching:

The information on the university's websites is woefully inadequate and updates are sometime very slow. Imagine there was a time an HOD [head of department] resigned but his profile remained same on the website for almost a year (Teaching staff 1).

The website is under developed as we do not even have our staff profiles, research outputs and areas of teaching interests on the websites. We have complained to management on several occasions but little is done about it (Teaching staff 3).

I have been expecting to see the profile of all staff, both administration and teaching, but hardly do you get for any of the administrative staff with the exception of three or four who are key. Even with the lecturers, I can say that you cannot get up to 25% having their profiles on the university's website. (Non-teaching staff 1)

In conclusion, most external stakeholders could not express their impressions on the TUs website due to lack of skills and interest in accessing the websites disclosures. The few that visited the websites were not impressed with the extent of disclosures. On the contrary, internal stakeholders demonstrated interest in the TUs' Website but perceived a huge disclosure gap in terms of the extent of reporting and untimely update of the websites' disclosures.

6. Study implications

Sustainability reporting provides for universities, a means of evaluating their current state on economic, environmental, social and educational dimensions (Fonseca *et al.*, 2011; Gamage and Sculli, 2017). It further serves as a means of communicating to their stakeholders including current students, new students, academics, government departments, parents,

funding bodies, alumni and staff (Alonso-Almeida *et al.*, 2015; Caputo *et al.*, 2021; Hinson *et al.*, 2015). Similar to existing studies such as Hinson *et al.* (2015), we adopted Fonseca *et al.* (2011) conceptual framework for presenting and analysis of the sustainability disclosure on the websites of TUs in Ghana. However, we extended these studies by engaging with key stakeholders on their impression on the contents of the website disclosures of the sampled HEIs (See Table 5 for Empirical framework).

6.1 Implication for practice

As indicated in the empirical framework in Figure 2, we found that whilst to a large extent, external stakeholders were less interested on the TUs’ websites disclosures, internal stakeholders who visit the TUs’ websites were not impressed with the extent of sustainability reporting due to its fragmented nature. For instance, none of the TUs publishes annual and stand-alone sustainability reports as at the time of this study. We further observed that only one of the TUs in Ghana indicated “sustainable development” in their vision statement and another mentions “environment” as part of their core values on their website. Thus, information on sustainability vision, mission and governance are very limited on the websites of TUs in Ghana. Wijethilake and Lama (2019) claim this is not a good sign, as experts claim that the sustainability motivations and message must emanate from top-level management. This finding contradicts previous studies from advanced economies, which found that the management of universities sees the need for a strong commitment by university leadership to create sustainability awareness and commitment through their visions and mission statements (Fonseca *et al.*, 2011; Gamage and Sciulli, 2017).

As noted by existing studies such as (Amoako *et al.*, 2018; Caputo *et al.*, 2021; Guthrie and Farneti, 2008; Gamage and Sciulli, 2017), we found that the application of GRI guidelines in the sustainability disclosure on websites of TUs in Ghana was fragmented, however, there were some convergences in the dimensions reported on; while all of them reported on policies related to sustainability in research, research centers, lab related to sustainability, incentives to sustainability research and sustainability related research projects, none of them reported on their reporting approach, and green building and procurement. Adams (2013a) argues that universities encounter peculiar sustainability challenges including low proportion of

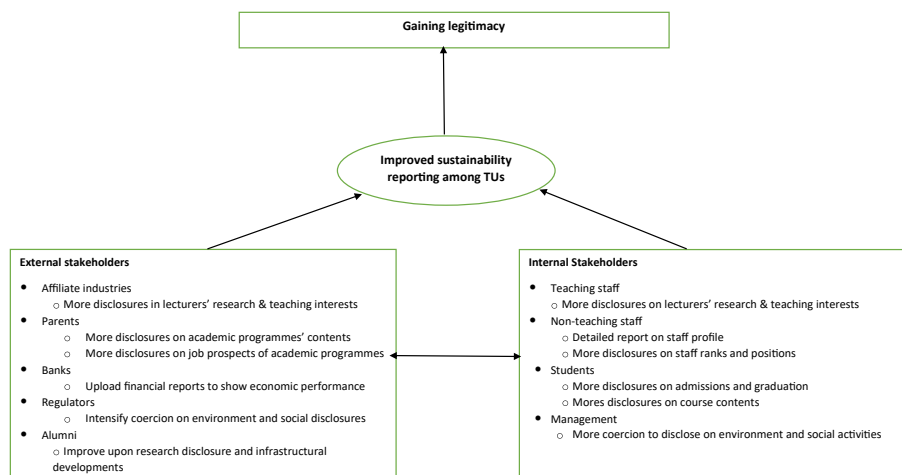


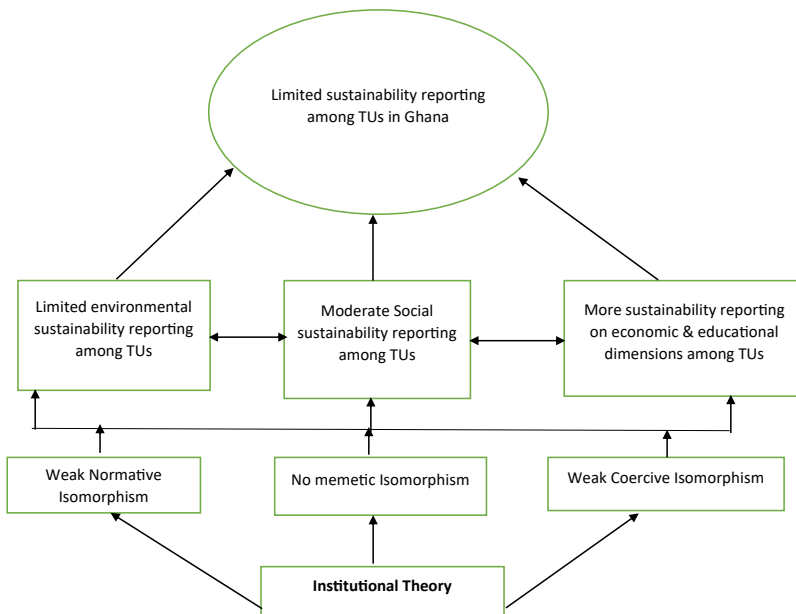
Figure 2. Empirical framework on practical contributions

Source(s): Authors’ construct (2022)

students from poor socioeconomic backgrounds, and the limited practices, programs, course contents and research on sustainability that should appear in sustainability reports.

Nonetheless, as it could be seen from Figure 2, the current study reveals a low coverage of these dimensions on the websites of TUs in Ghana as prescribed by global sustainability standards such as the GRI. Our findings conform to Hinson's *et al.*'s (2015) findings that HEI's disclosure of sustainability-related information in developing countries is rarely guided by international guidelines (Mitchell and Hill, 2009). However, as indicted on the empirical framework (see Figure 3), we claim that the limited sustainability disclosures on the part of TUs in developing economies could be largely attributed to stakeholder low interest in the website disclosures of the sampled TUs as well as lack of adequate regulatory enforcement.

We therefore recommend that regulatory and policy officials should work in partnership to hasten the development and implementation of such guidelines and regulations (Amoako *et al.*, 2022; An *et al.*, 2019). The development of the suggested guidelines may emanate from well-established and accepted standards such as the GRI, as well as combining other influential reporting models particularly for universities, such as the sustainability tracking, assessment and rating system and the graphical assessment of sustainability in universities (Lozano, 2006) and the Hong Kong Sustainable Campus Consortium (An *et al.*, 2019). In addition, this study's findings could have some implications for universities' education, particularly in emerging economies where challenges related to sustainability are more prevalent (Wu *et al.*, 2015). Based on the recommendations from this study, sustainability education can be improved in these countries, thereby eradicating the sustainability challenges. The governments in developing countries and donor agencies would also be informed on the initiatives to take in providing HEIs with resources and community support to attract more talented academics and students locally and internationally (Yalin *et al.*, 2019; An *et al.*, 2019).



Source(s): Authors' construct (2022)

Figure 3. Empirical framework on theoretical contributions

An interesting finding in this study is the low impressions of all the stakeholder groups on the extent of sustainability reporting on the TUs' websites. These findings could be explained by the interrelationships between the internal and external stakeholder groups, notwithstanding the different positions that they occupy within the TUs. First, the internal stakeholders (management, staff and students) and the external stakeholder have a contractual relationship with the institutions, usually of long duration. This common characteristic could contribute to align the expectations of these groups as their expectations converge toward the TUs delivering quality education. Second, even though the internal and external stakeholders may play opposite roles in the teaching-learning process and have different interests to connect with the expectations of external stakeholders, the professional success of students may depend, during a brief period, on the relationship between HEIs, the job market or other external stakeholders including industry affiliates. Finally, non-teaching staff seem to play a mediating role because they offer support services to both academics and students in addition to the management system in general. Consequently, these similarities could affect the expectations of TUs stakeholders and their interrelationship with sustainability reporting and could in the long run affect the visibility and rankings of the TUs. This is crucial to the sustainability of TUs as highly ranked universities are most likely to attract more students and funding.

6.2 Implication for theory

Normative isomorphism comes from the professionalization of operations which is motivated by the process of acquiring education, both academic and professional. In this study, there is a very weak presence of normative isomorphism as only two of the 10 TUs in Ghana included SDGs in their visions and missions. Again, limited normative pressure is identified in this study because all the TUs reported on few of the elements in the GRI, with most of them focusing on the educational dimensions. This could be that the TUs, as part of HEIs, subscribe to international standard-setting bodies; all the TUs in Ghana are members of the Association of Principals of Technical Institutes, the Commonwealth Association of TUs and Polytechnics in Africa and Conference of Vice-Chancellors of TUs, Ghana. These professional associations usually expect members to abide by certain standards (DiMaggio and Powell, 1983; Greenwood and Meyer, 2008), which could include what they should report on their websites. Nonetheless, the influence of these professional bodies in the TUs' sustainability reporting appears to be mainly on economic and educational dimensions of sustainability at the expense of social and environmental dimensions.

Another evidence of limited normative isomorphism was identified from both the content analysis and the interviews, as all the TUs voluntarily report mainly on academic programs on their websites, with no or less focus on environmental and social disclosures. As indicated by an interviewee, this is not surprising, given the fact that the main purpose of universities is education and research. Thus, the key focus of TUs sustainability disclosures on their websites is a reflection of nothing, but business as usual (Bennett *et al.*, 2008; Scheyvens *et al.*, 2016). This contradicts the results of studies conducted in advanced economies (such as Caputo *et al.*, 2021; De la Poza *et al.*, 2021) which concludes that the social and environmental dimensions are crucial to sustainability reporting among HEIs.

Our findings from stakeholders who were interviewed confirmed that the weak focus on environmental disclosures is partly because there are no coercive forces to disclose on environmental sustainability as discovered in recent studies (such as Gamage and Sciuili, 2017; Zorio-Grima *et al.*, 2018; Amoako *et al.*, 2018, 2021). Again, as mentioned in Section 4, all the TUs disclosed that they were regulated by the TUs Act, 2016 (Act 922) and subject to a level of central control by more than three regulatory bodies. Nonetheless, the focus of these regulatory bodies may not be on the disclosure contents on the TUs website as indicated by a

regulator in an interview. Consequently, the coercive pressures from the aforementioned regulatory bodies and other global associations may influence the convergence on the website's disclosure patterns (de Villiers and Alexander, 2014) among TUs in Ghana, which were more toward economic sustainability with little focus on social and environmental sustainability respectively. It is therefore not surprising that all the TUs in Ghana had similar headings for their drop-down menus, but the similarities pointed toward economic sustainability.

7. Conclusions, limitations and further research

This paper explores stakeholder perceptions on the nature and extent of sustainability reporting on the websites of TUs in Ghana. We used content analysis to explore the information on the websites of all 10 TUs in Ghana. Also, we interviewed the stakeholders to understand their perceptions of the extent of disclosures. The study again adopted institutional isomorphism and legitimacy theories as well as the GRI guidelines and campus sustainability assessment tools for the presentation and analysis of the sustainability disclosures on the websites of TUs in Ghana. The findings show that, compared to traditional universities in Ghana (Hinson *et al.*, 2015), the Ghanaian TUs are inadequately reporting on sustainability.

Nonetheless, there are similarities in the contents and trends of the limited sustainability reporting of TUs in Ghana, which signify the presence of institutional isomorphism on the extent of sustainability reporting. Again, to a large extent, external stakeholders showed less interest in the website disclosures, and the few that visited the TUs' websites were not impressed with the extent of disclosures. Even though internal stakeholders such as students and TUs staff (teaching and non-teaching) were interested in the website's disclosures, similar to the few external stakeholders who were interested in the disclosures of the TUs, they were not impressed with the extent of disclosures; as a means of gaining legitimacy from stakeholders, the dimensions reported are limited, showing a more focus on organizational profile, governance and educational aspects of sustainability. As indicated in the Empirical framework II, we found that social dimensions were moderately reported due to weak regulatory enforcement. In contrast, environmental dimensions had weak coverage, reflecting business as usual. Therefore, developing further extensive sustainability disclosures by TUs in Ghana is imperative for improvement in stakeholder accountability and legitimacy. Again, TUs could emulate best practices from the business sector to improve their sustainability reporting initiatives (Gamage and Sciulli, 2017).

Researchers, TUs administrators and policy-makers can benefit from this research. This study suggests that, per the propositions of institutional isomorphism and legitimacy theory, HEIs that lobby for instilling sustainability values in the next generation and the society at large are motivated to operate sustainably and to communicate sustainability-related activities in responding to institutional isomorphism in gaining legitimacy from the communities they operate from (Deegan, 2019). A highly ranked university is more likely to attract more students and funding, which is crucial for the sustainability of TUs.

Even though this study's findings have practical implications for sustainability reporting among TUs', they have some limitations. First, this study confined its analysis to only the website's disclosures without engaging stakeholders in posting information on the TUs' websites. Several limitations affected the consistency of the research findings. The case study approach allowed us to collect in-depth evidence about the investigated topic; however, it prevented the results' generalizability. We only focused on a section of stakeholders of HEIs: further developments should aim at collecting evidence about the value expectations of other stakeholders interested in the activities performed by educational institutions, such as the media and prospective students. Considering the current low level of sustainability reporting

by TUs in Ghana, it is worthwhile to extend research on why TUs in Ghana have limited disclosures. Another area of further study could be a comparative study between TUs and traditional universities within a particular country or region.

List of abbreviations

SD	Sustainable development
HEI	Higher educational institution
TVET	Technical and vocational education and training
TUs	Technical universities
GRI	Global reporting initiative. Available at https://www.globalreporting.org/
GTEC	Ghana Tertiary Education Council. Available at https://gtec.edu.gh/
CTVET	The commission for technical and vocational education and training. Available at https://ctvet.gov.gh/
TATU	Tamale Technical University. Available at https://tatu.edu.gh/
KSTU	Kumasi Technical University. Available at https://kstu.edu.gh/
ATU	Accra Technical University. Available at https://atu.edu.gh/
CCTU	Cape Coast Technical University. Available at https://cctu.edu.gh/site/index
KTU	Koforidua Technical University. Available at https://www.ktu.edu.gh/
HTU	Ho Technical University. Available at https://htu.edu.gh/
TTU	Takoradi Technical University. Available at https://ttu.edu.gh/
STU	Sunyani Technical University. Available at https://stu.edu.gh/
BTU	Bolgatanga Technical University. Available at https://www.bolgateu.edu.gh/
WTU	Wa Technical University. Available at https://dhlteu.edu.gh/

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(The Appendix follows overleaf)

Table A1.
Coding of interviews results

First-order codes	Second-order categories	Aggregated theme
<p>You know very well that research is a core mandate of every tertiary institution. As such the university need to demonstrates the efforts that we are making towards this direction as well as the results of these efforts (Academic staff 2)</p> <p>TUUs are to be more focused in the delivery of CBT. One way to achieve this is to liaison with industry for students training and attachment placements. Therefore, even though we are not under any obligation to publish on industry collaborations, we need to demonstrate to regulators and public that we are actually doing the right thing (Administrator 1)</p> <p>We are not mandated to publish our financial reports on the university's website. However, we report to the University Governing Council and submit copies of the annual report to the Ministry of Education through GTEC (Administrator 2)</p> <p>I visited my alma mater's website and was not impressed at all with the scanty information there. Compared with the website of the university where I teach in the UK, my alma mater's website was nothing to write home about. [Alumnus 3]</p> <p>Unfortunately, I do not remember ever searching for information from the website of my ward's university because I'm not sure if I need anything there (Parent 2)</p> <p>Besides the 10 TUUs, we regulate about 16 traditional universities, over 40 private tertiary educational institutions and more than 50 colleges of education, health and nursing. Therefore, we cannot visit the websites of all these institutions unless we have reason to do so. For instance, if it comes to our notice that a university is advertising an unaccredited program, we may have to confirm that from your websites for appropriate sanctions to be imposed (Regulator)</p> <p>I have been expecting to see the profile of all staff, both administration and teaching, but hardly do you get for any of the administrative staff with the exception of three or four who are key. Even with the lecturers, I can say that you cannot get up to 25% having their profile on the university website. (Non-Teaching staff 1)</p> <p>Sir, please as for the university's website, I go there to register courses for the semester and also to check my results. There is not much information there. Most information that is needed are sent through the departmental and class WhatsApp pages. (Student 1)</p> <p>The information on the university's websites is woefully inadequate and updates are sometime very slow. Imagine there was a time an HOD [head of department] resigned but his profile remained same on the website for almost a year. (Teaching staff 1)</p>	<p>TUUs disclosure on their websites are motivated by business as usual</p> <p>External stakeholders are less interested in the disclosures on the TUUs website</p> <p>Internal stakeholders are not impressed with the extent of disclosures on the TUUs website</p>	<p>Stakeholder perceptions on sustainability reporting</p>

Source(s): – Authors' construct (2022)

Appendix 2
Interview guide

Websites of
technical
universities in
Ghana

Interview guide for external stakeholders

- (1) How often do you visit the university's website?
- (2) What do you search for at the university's websites?
- (3) How satisfied are you with the information you look out for from the university's website?
- (4) How could the disclosures on the university's website be improved?

Interview guide for internal stakeholders

- (1) How often do you visit the university's website?
- (2) What do you search for at the university's websites?
- (3) What are the motivations for the disclosures on the university's website?
- (4) How satisfied are you with the information you look out for from the university's website?
- (5) How could the disclosures on the university's website be improved?

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