EXAMINING THE RELATIONSHIP BETWEEN SUSTAINABILITY REPORTING PROCESSES AND ORGANIZATIONAL LEARNING AND CHANGE

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Abstract

Although there have been a number of publications discussing sustainability reporting (SR) in private and public sectors within the last decades, the number has been quite low when compared to works on non-governmental organizations (NGOs). This research explores this and finds that SR is a key driver for organisational learning and change in NGOs. A combination of descriptive statistics, grounded theory (GT) and inferential statistics was used to analyse the data. The findings show that SR and organisational learning and change share a reciprocal relationship that begins as the driver for learning and extends as change. This reciprocal relationship is repetitive and improves reporting process through enhanced sustainability performance in a mimetic approach. The research shows that SR fosters opportunities for cost and benefit evaluation, the institutionalization of sustainability, transfer of skill and innovation, attitudinal change towards sustainability, stakeholder engagement and ownership, as well as increasing the donor base. The findings further reinforce the contention that SR is influenced by organisational culture, donor behaviour and management decisions. The study also communicates the various lessons learnt from NGOs' sustainability efforts that other NGOs, private and public sectors can benefit from.

Keywords: NGOs, Sustainability, Organization, Change, Accountability

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1. INTRODUCTION

In line with Adams and McNicholas (2007), sustainability reporting (SR) could result in change through moderation resulting from media pressure, stakeholder pressure, political or other social, economic and environmental factors. For instance, an expected, perceived or intended lesson and/or change resulting from the cost-benefit analysis of SR could enhance embedding and routinisation of SR in non-governmental organizations (NGOs). SR and its attendant visibility enhance the embedding of sustainability values and performance in corporate organizations, which results in change (Adams & McNicholas, 2007). Since changing individual behaviour in isolation will not lead to dynamic change because of pressure to conform (Lewin, 1947), efforts to promote change are expected to

target a group in the form of the norm, roles and processes (Adams & McNicholas, 2007). SR has the potential to catalyze learning and change in an organization. For instance, SR best practices will foster sustainable objectives, impact, adequate stakeholder engagement, and performance as well as assessment outcomes (Asogwa et al., 2021). SR offers organizations the opportunity to communicate their values, governance, and impact, and showcase their strategies and commitments towards a sustainable global economy (Global Reporting Initiative [GRI], n.d.-b; GRI, 2015; Mi & Coffman, 2019). This is further demonstrated in the evolution of SR and its influence in fostering organizational change in the public sector (Lai & Stacchezzini, 2021). Regardless of the potential of SR to lead to organizational learning and change, however, there is no evidence of this in NGOs (Asogwa et al., 2021; O'Dwyer, 2002). Understanding the link between SR and organizational change in NGOs is key to advancing the adoption of SR, especially in developing countries because of the role it plays in shaping organizational practices, governance and development (Goddard, 2021; Lai & Stacchezzini, 2021; Welbeck, 2017). In this sense, our research question (RQ) is:

RQ: What is the influence of SR to organizational learning and change management in NGOs?

Previous research has explored the link between SR and organizational change in both private and public sectors (Adams & McNicholas, 2007; Domingues et al., 2017; Lozano et al., 2016; Jeong & Shin, 2019) but no study has been carried out for NGOs to the best of our knowledge. As such, the objective of this study is to explore the influence of SR on organizational change in NGOs. By doing this, we respond to calls in the literature for research into SR adoption and its influence on organizational change, especially in developing countries (Asogwa et al., 2021; Farooq & de Villiers, 2019).

The remaining sections of the study are organized in the following ways. Section 2 presents the literature review. Section 3 presents the methodology, while Section 4 presents the results, findings and analysis. Section 5 presents the discussion and finally, the conclusion is presented in Section 6.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. The concept of sustainability reporting

The term 'sustainability' denotes a European ideology that originates from the management of

forestry (Fifka et al., 2016, p. 1097). SR is an instrument used to foster sustainable development goals. It is aimed at demonstrating accountability, assessment and outcome, governance and impact, as well as improving the overall quality of life oriented towards the environment, society, and the economy (Asogwa et al., 2021). More precisely, SR is defined in NGO literature to mean a process that accounts for the impact of the activities of NGOs on the environment, society, or economy and that demonstrates governance and accountability mechanisms, aimed at ensuring continuity at the end of the initial funding period and geared towards improving the overall quality of life (Asogwa et al., 2021). In line with Farooq and de Villiers (2019), SR is an accounting mechanism that assists organizations in embedding sustainable practices within their framework. This process includes voluntary disclosure of information on economic, social and environmental issues (GRI, n.d.-a; Sukhari & de Villiers, 2019). SR involves the process of providing information about the performance of an organization in its social, environmental, economic, and developmental interactions with the community (Klemes, 2015; O'Dwyer & Unerman, 2020). This includes an account of involvement and impact and suggests a commitment to the community by ensuring good health and safety, training, capacity building, and education as well as social, economic and environmental sustainability, and general development. The practice of SR creates value by increasing reputation; building a systemic way of accountability to the stakeholders; and integrating them into the mainstream activities of the organization through the institutionalisation of an appropriate reporting practice and entrenching change (Farooq & de Villiers, 2019; Tilt et al., 2021). The reports of NGOs concerning sustainability accounting seem to be bad and suggest that the actual roles of SR differ from the perceived role (Traxler et al., 2018) and also appear to be one of the key failures of philanthropic organizations. There is evidence of inadequate transparency at the organizational level of NGOs; for example, the analysis of NGOs' annual reports shows signs of unbalanced and weak accountability practices (Conway et al., 2015; Dhanani & Connolly, 2015). In this sense, the following hypothesis was developed:

H1: Perceived roles of SR differ from their actual roles in NGOs.

Previous literature identifies some measures for organizational change with respect to SR. These are presented in Table 1 below.

Table 1. Measures of organizational change

Measures	Domingues et al. (2017)	Lozano et al. (2016)	Pérez-López et al. (2015)	Manetti & Toccafondi (2014)
SR has not facilitated any change in the NGO	x	x		
SR has facilitated minor changes in some parts of the NGO	x	x		
SR has facilitated major changes in some parts of the NGO	x	x	x	
SR has facilitated minor changes in the NGO as whole	x	x	x	
SR has facilitated major changes in the NGO as a whole	x	x		x
NGO impact on the society	x	x	x	
Level of SR influence — major/minor/none	x	x		

2.2. Organizational change for sustainability

Organizations may require a change in certain aspects of their operations such as alignment of values, vision, policies, philosophies, employee-

related issues and management practices and systems. This change is often intended to shift the organization or its operation from a particular state of affairs (current state) to another state of affairs perceived to be more desirable (Ragsdell, 2000).

Domingues et al. (2017) proposed a model for organizational change that represents a move towards an opportunity that is anticipated, prepared for, and managed. When an organization refuses to respond to new opportunities, processes or techniques, that refusal can result in an economic loss (Adams & McNicholas, 2007). In this sense, change can be said to be driven by economic benefit (Cannon, 1994) and/or a perception of it, while failing to embrace the culture of learning and change could result in some form of externalities or operational challenges.

In line with Adams and McNicholas (2007), a failed organizational change project will result in absence of sustainability performance, and poor communication between SR managers and other stakeholders (both internal and external). Burritt and Schaltegger (2010) stated that SR is an important tool that helps organizations make sustainable decisions that result in change, using two approaches: 1) the 'outside-in' approach — which is determined by reporting and relationship with stakeholders; and 2) the 'inside-out' approach — which is determined by management/internal change processes and approach to innovation or strategies. However, this perspective was modified by Lozano et al. (2016) to 'only external', 'mainly external', 'both internal and external', 'mainly internal' and 'only internal'.

Jeong and Shin (2019) examined how performance work practices influence organizational creativity among Korean companies and found that employees' collective learning was useful in entrenching organizational change and creativity. Similarly, Bhatnagar et al. (2010) established that employee orientation results in organizational change in the Indian business environment. These, therefore, suggest that organizational change for sustainability can be achieved through a 'top-down' approach with significant management control and 'inside-out' with significant internal change and creativity. While most organizations follow the top-down approach, only a few have followed the inside-out approach with internal change, learning and creativity, especially in the non-profit sector space (Henriques & Richardson, 2005; Lozano, 2013; Lozano et al., 2016). Considering that sustainability reporting is relatively emerging (especially in the non-profit sector), coupled with a mixed understanding regarding its applicability in different disciplines (Asogwa et al., 2021), more evidence is needed to confirm its influence and potential for learning and change.

To help explain the dynamics, we proposed a model (see Figure 1) for a relationship between SR and organizational change in NGOs, based on the works of Lozano (2013), Lozano et al. (2016), Domingues et al. (2017) and Adams and McNicholas (2007). The model postulates that SR and/or its drivers give rise to organizational change in NGOs which results in accountability. Accountability is, thus, driven by sustainability reporting/performance giving rise to a reciprocal relationship between SR, accountability and organizational change. However, in resource-dependent organizations, this process will give rise to increased resources resulting from stakeholder satisfaction, which is paramount in the desires of NGOs as accountability to stakeholders drives resource donations (Dewi et al., 2019; Kuruppu & Lodhia, 2020). Planned changes

affect the existing organizational trend and drive institutionalization and routinization of sustainability practices across organizations on a continuous basis (Ernst & Schleiter, 2021; Farooq & de Villiers, 2019; Lozano et al., 2016). This makes primary evaluation of the drivers to change in NGOs important in order to ensure that appropriate measures are taken to forestall barriers to change. Although NGOs are resource-dependent, the institutional framework can help them ensure a stable transition during the change process. This would help to institutionalise and entrench sustainability practices, and the system would be able to navigate the transition period before it becomes more sustainability-oriented (Farooq & de Villiers, 2019; Lozano et al., 2016). Based on the issues raised above, the following hypothesis was developed.

H2: Changes could be facilitated by SR in NGOs.
H3: SR can influence organisational learning and change in NGOs.

3. RESEARCH METHODOLOGY
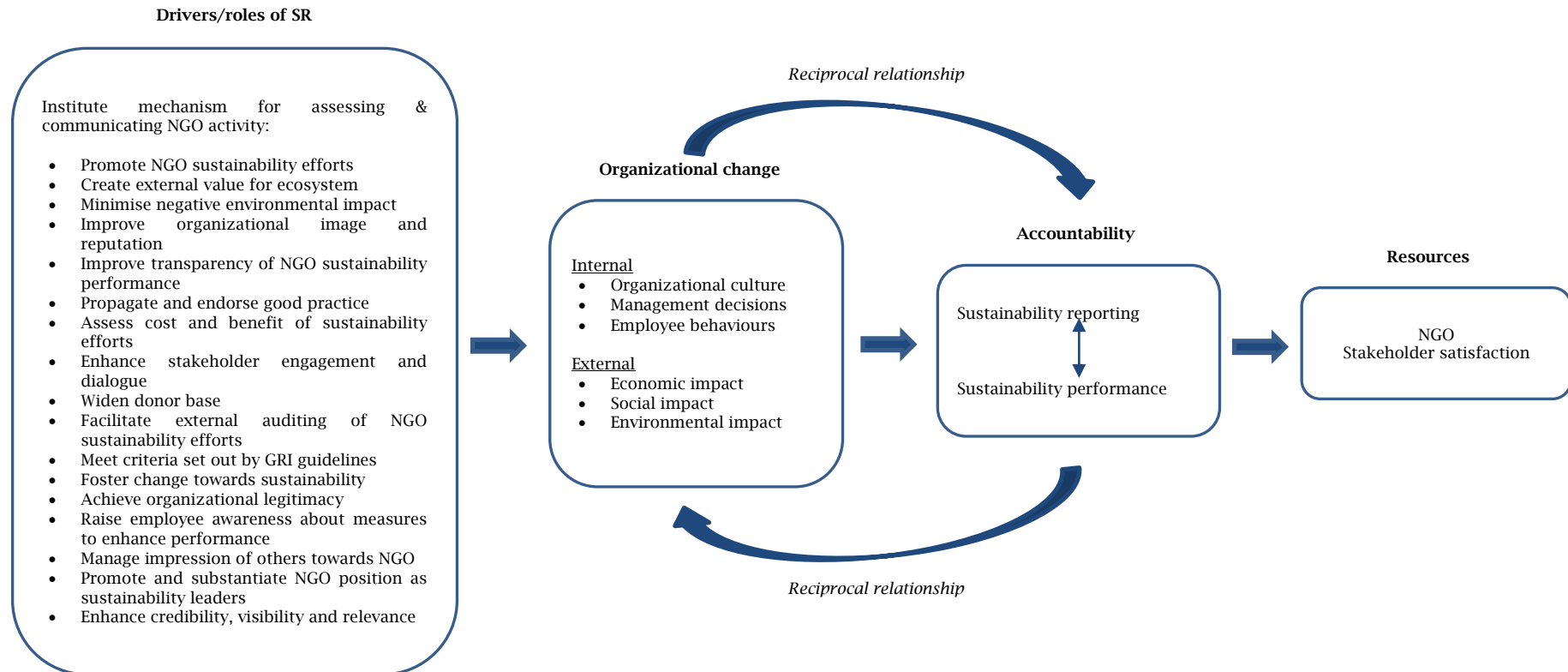
3.1. Research design

A survey that contains qualitative information with a considerable number of open-ended questions was developed for this research. The first part of the survey contains questions that use a Likert scale ranging from 1 to 5, which enabled respondents to specify how they agreed or disagreed with each aspect of inquiry in line with Saunders et al. (2012). The choices on aspects of the scale ranged between 'strongly disagree', 'somewhat disagree', 'neither agree nor disagree', 'agree' and 'strongly agree' (Saunders et al., 2012).

The survey was administered either by face-to-face survey or online as the survey questions could be accessed through Qualtrics; this was developed and managed by the researcher. The research was conducted from the month of March to October 2020, a period which unfortunately fell when the COVID-19 pandemic was at its peak in Nigeria and therefore, most of the responses were collected through the online channel.

Before launching the survey, a pilot study was conducted with selected NGOs in Sydney, Australia to validate both the survey and the interview questions. Resulting from this, the documents were amended taking into account the feedback and recommendations received from the pilot test which reflected the industry jargon and improved the readability and the understandability of the questions asked in the survey. This was done to enhance the quality of the responses and to ensure that the respondents properly understood the questions being asked. Guided by the findings from the literature reviewed, the survey was divided into six sections following the work of Lozano et al (2016) in a similar study involving the corporate sectors and Domingues et al. (2017) for the public sector:

1. Organizational characteristics.
2. SR experiences of the NGOs.
3. Variables used for SR.
4. Variables used for organizational change.
5. Stakeholder involvement.
6. Detail of SR performance.

Figure 1. Relationship between SR and organizational change

Drivers/roles of SR

Institute mechanism for assessing & communicating NGO activity:

- Promote NGO sustainability efforts
- Create external value for ecosystem
- Minimise negative environmental impact
- Improve organizational image and reputation
- Improve transparency of NGO sustainability performance
- Propagate and endorse good practice
- Assess cost and benefit of sustainability efforts
- Enhance stakeholder engagement and dialogue
- Widen donor base
- Facilitate external auditing of NGO sustainability efforts
- Meet criteria set out by GRI guidelines
- Foster change towards sustainability
- Achieve organizational legitimacy
- Raise employee awareness about measures to enhance performance
- Manage impression of others towards NGO
- Promote and substantiate NGO position as sustainability leaders
- Enhance credibility, visibility and relevance

Reciprocal relationship

Organizational change

Internal
- Organizational culture
- Management decisions
- Employee behaviours

External
- Economic impact
- Social impact
- Environmental impact

Accountability

Sustainability reporting

Sustainability performance

Reciprocal relationship

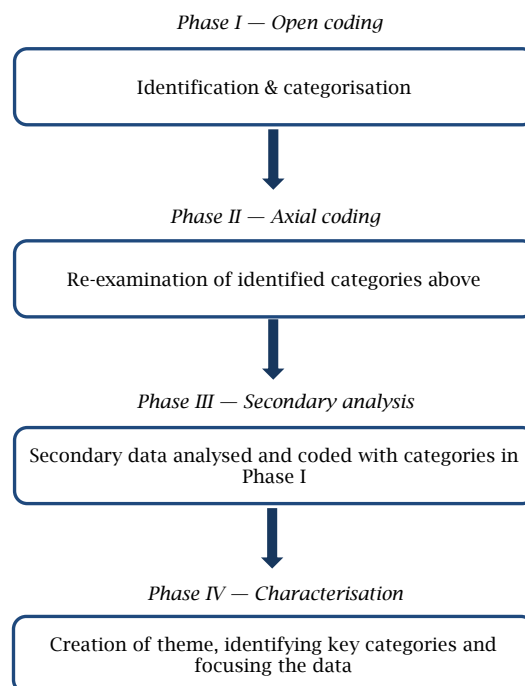**Resources**

NGO
Stakeholder satisfaction

A list of NGOs operating in Nigeria was obtained from the Corporate Affairs Commission (CAC) of Nigeria through Nigeria Network for NGOs (NNGOs). The list contained 1,094 registered NGOs as of September 2019, including both local and international NGOs. Before meticulously going through their websites, the researcher initially tried to contact them one by one either by email or by phone; however, not all of them had a functional email or a reachable contact phone number on their websites. To avoid bias and to increase the reliability of the responses, an examination of their websites and annual reports for SR was undertaken and thereafter staff was contacted with the invitation to participate in the survey. From the list, a thorough examination of the NGOs' websites and their annual reports showed that only 352 NGOs published SR, representing 32% of the sample population. Out of the 352 NGOs, 142 completed the survey, representing a 40% response rate. The statistics regarding the online version indicate that, although 185 NGOs started the survey, only 124 completed it and another 18 responses were received through the face-to-face channel. As the response rate of mail surveys is usually around 20% (Bhattacherjee, 2012), and bearing in mind that a low response rate is common with NGOs research (Denedo et al., 2017; Dewi et al., 2019; Kuruppu & Lodhia, 2020; O'Dwyer & Boomsma, 2015), then the response rate for this study is considered high.

3.2. Data analysis

The findings from the open-ended questions were analysed through constant comparative analysis methods of grounded theory (GT) (Domingues et al., 2017; Glaser & Strauss, 2009). In line with Glaser and Strauss (2009), qualitative grounded theory was applied to develop a systematically analysed conceptual category that is based on data collected from the research (Rieger, 2019). It is a method that supports building and developing theory from data and observations (Charmaz, 2006; Jupp, 2006; Rieger, 2019). Grounded theory by Glaser and Strauss (2009) makes use of inductive thematic analysis and combines several techniques aimed to identify categories and concepts. This was done in four (4) phases (see Figure 2). Phase I, 'open coding' (Schatzman & Strauss, 1973), ensured identification and categorisation of relevant issues emanating from the raw data. At this initial stage, the data were labelled; for example, SR-related changes and the use of SR learning tools in NGOs were categorised. Under Phase I, the identified categories were further examined (re-examination) in order to establish a relationship between them in line with Corbin and Strauss (1990), a method popularly referred to as 'axial coding'. These were then compared and integrated in a way that presented a good picture of the phenomenon being examined. In Phase III, 'secondary analysis', the data were analysed and coded in line with existing categories (Urquhart, 2013). This gave rise to the development of theoretical insights on SR in NGOs, such as the reasons for publishing the first SR, or the motivation for publishing the subsequent one after the first one was published, and/or the related changes, the barriers and the related solutions. The last stage, Phase IV, involved 'characterisation' through the identification of key categories that emerged, focusing the data through theoretical coding in line with Glaser and Strauss (2009) and Rieger (2019).

Figure 2. Phases of analysis

Phase I — Open coding

Identification & categorisation

Phase II — Axial coding

Re-examination of identified categories above

Phase III — Secondary analysis

Secondary data analysed and coded with categories in Phase I

Phase IV — Characterisation

Creation of theme, identifying key categories and focusing the data

The above processes, in addition to the analysis of the quantitative data, facilitated the in-depth analysis of the findings reported in the subsequent sections that present the empirical study. The analyses were combined and jointly examined, giving rise to a broad and coherent discussion of results that underpins the relevance of SR in NGOs.

The quantitative data were analysed using descriptive exploratory analysis and inferential statistics. The statistical analysis tool IBM SPSS Statistics 27 for Windows was used in this process.

Central tendencies such as the arithmetical mean that indicates the average value of variable categories across the entire data and measures of dispersion helped to describe the distribution of the responses (Lozano et al., 2016).

Correlation analyses were conducted on two variables simultaneously to identify possible relationships while cross-tabulations were used to identify interdependencies between variables in line with Saunders et al. (2012) and also Lozano et al. (2016). This process was used to analyse multiple variables at once and detect patterns in the data which show possible relationships that exist between variables. Once a pattern was detected, a correlation coefficient was calculated to further explore the relationship. This was done by calculating the value of Pearson correlation coefficient (Pearson's r) for the interval or ratio variables or Spearman's *Rho* for pairs of ordinal variables (Field, 2009; Lozano et al., 2016; Saunders et al., 2012). The level of statistical significance was set at 5% ($p < 0.05$). Variables for SR processes and organizational change can be found in Appendix (Tabled A.2 and A.3 respectively); these were used because they were already established in research by Lozano et al. (2016) and Asogwa et al. (2021).

4. RESEARCH RESULTS

The respondents were involved in either welfare services (33%), advocacy (21%) or both (46%). Most of the responses came from NGOs with employees ranging from 500 to 999 (47%) nationwide, followed by NGOs with 250 to 499 employees (23%) and then NGOs with 50 to 249 employees (12%), and lastly from NGOs with 1000 to 4999 employees (9%). Fifty-eight percent of the respondents were from international NGOs while the remaining 42% were from NGOs operating within Nigeria only. International NGOs in this case referred to NGOs that have branches outside Nigeria.

The respondents defined SR in several ways. Most of the respondents defined it as an accountability mechanism that helps NGOs better measure their environmental, social, economic, governance and developmental practices to drive organizational strategies and values to a greater level of performance (56%). Others defined it as a report that meets the needs of the present without compromising the ability of future generations to meet their needs (23%). Thirteen percent of the respondents defined it as a report that includes social, environmental and economic concerns of the NGO's activities and its interactions with stakeholders while 8% simply defined it as a report on the environment only.

All the respondents had published at least two SR as of March 2020 (during the survey) and are still publishing SR. Seventy-two percent of the respondents acknowledged that there was no unit or department directly responsible for SR. Individual units/heads of the project prepared and presented SR as part of their routine progress report (mostly on a weekly/bi-weekly or at most monthly basis) which was then articulated and formed as part of SR published either on the websites or in the annual reports. Some respondents also indicated that SR was previously referred to by other names such as "environmental report", "social report" and/or "integrated report".

The survey respondents (NGOs) have been directly involved in the preparation of SR, with the most experienced person having up to 8 years' experience and the least with 2 years' experience. Their involvement ranged from the collection of data and preparation of the report to the supervision of the reports/oversight functions. Our findings suggest that international NGOs are better positioned for organizing and preparation of SR.

4.1. Sustainability reporting process

Findings reveal that NGOs collected data for SR from the field where projects were carried out, which in most cases were in the rural areas. They collected the data from the field/project experiences and in some cases, these were complemented with other published reports and data that already existed in the NGO for other purposes. The data were then collated from all the departments/units handling each project and sent, first to the unit heads or managers and then to the team or person responsible for the preparation of the annual report or its publication on the NGO website or annual report, as the case might be. This was done with theuse of an already existing template for each indicator. In some cases, NGOs made use of "field gatemen" who collected supplementary information about the project in the locality on behalf of a particular NGO and reported this to the NGO personnel on an ongoing basis. The gatemen acted as points of contact or intermediaries between the beneficiaries of the said project and the NGO. This usually varied from one NGO to the other depending on the area of operation and need.

Most respondents claimed that the monitoring and evaluation (M&E) units were constantly scrutinising the report for content as well as to ensure that changes for indicators between reports were identified and adequately addressed (Domingues et al., 2017). As indicated by the respondents, another area where the M&E team helped with the SR process was data tracking which was aggregated weekly, monthly or yearly. For instance, a respondent stated thus: "*Our sustainability report is incorporated into our weekly programme report that assesses the progress of the work and the monitoring and evaluation unit take record and custody of this, aggregate the reports from other units for onward publication on our website*".
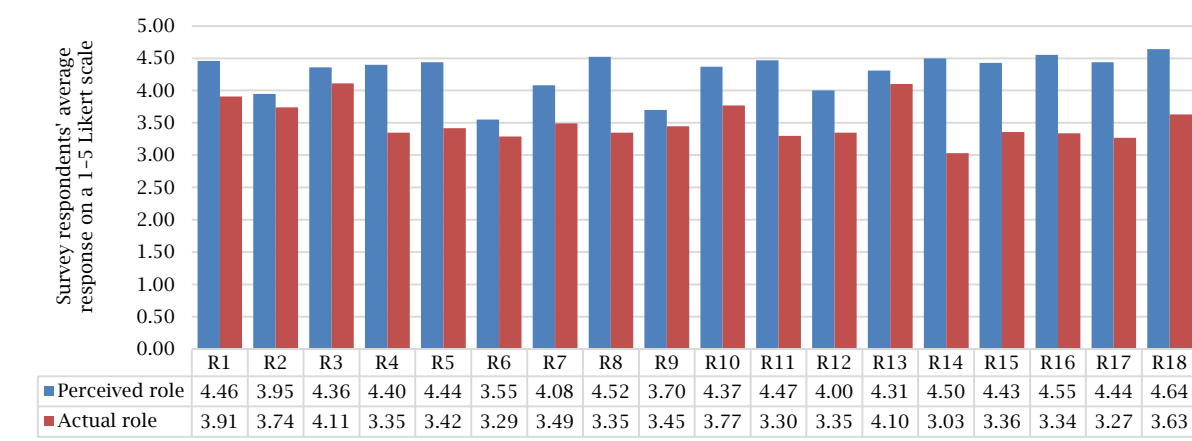
The survey asked if the reports included an assessment and communication of sustainability performance in different aspects of the organization/ management such as operational policies and strategy formulation and different units such as the M&E units. Most of the respondents agreed or

strongly agreed that the factors included in the survey were addressed in the sustainability report, accounting for 58% of the respondents. However, 27% of the respondents disagreed or strongly disagreed that some of the management systems covered in the survey such as culture, governance, complaint mechanism and growth/ innovation were covered in their reports. The remaining 15% were neutral about it.

The survey evaluated the perceived role and the actual role of SR with the intention of learning whether there was any difference between the two (Figure 3). The average mean is presented in the data table at the bottom of Figure 3. From the data table, it can be observed that the average mean ranged from 3.55 to 4.64 for the perceived role while the range for the actual role of SR ranged between 3.35 and 4.11. This shows that there was internal consistency in the response given and suggests that the respondents gave a high rating for the roles of SR included in the survey. It further indicates the relevance of the measures used. Figure 3 shows that the most perceived role of SR

was to enhance credibility, visibility and relevance of NGOs (M = 4.64). This is followed by the need to manage the public's impression of them (M = 4.55), to propagate and endorse good practice (M = 4.52), to achieve organizational legitimacy (M = 4.50), and to widen the donor base (M = 4.47). Surprisingly, the survey indicated that the least intended or perceived role of SR was to improve organizational image and reputation (M = 3.55), which suggests that by enhancing NGO credibility and visibility, NGOs hope to improve their organizational image and reputation by effectively managing the impression others have of them. The top five actual purposes of SR were to foster change towards sustainability (M = 4.11), meet criteria set out in the Global Reporting Initiative (GRI) guideline (M = 4.10), assess and communicate NGO activities (M = 3.91), enhance stakeholder engagement and dialogue (M = 3.77), and promote sustainability effort (M = 3.74). The result indicates that the intended roles of SR were not always fully met in NGOs, further suggesting that NGOs need to do more in order to take full advantage of SR.

Figure 3. Survey results showing the perceived role and actual role of SR in NGOs

|	R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18
Perceived role	4.46	3.95	4.36	4.40	4.44	3.55	4.08	4.52	3.70	4.37	4.47	4.00	4.31	4.50	4.43	4.55	4.44	4.64
Actual role	3.91	3.74	4.11	3.35	3.42	3.29	3.49	3.35	3.45	3.77	3.30	3.35	4.10	3.03	3.36	3.34	3.27	3.63

4.2. Changes facilitated by sustainability reporting

Figure 4 shows the change facilitated by SR and its potential to facilitate change. Ninety-four percent of the respondents agreed that SR had facilitated a change in the NGO. Thirty-nine percent of

the respondents indicated that SR had facilitated minor changes in some parts of the NGO while 23% indicated that SR has facilitated major changes in some parts of the NGO. Only 7% indicated that SR had facilitated major changes in the whole of the NGO (see Figure 4).

Figure 4. Survey results showing change facilitation by SR
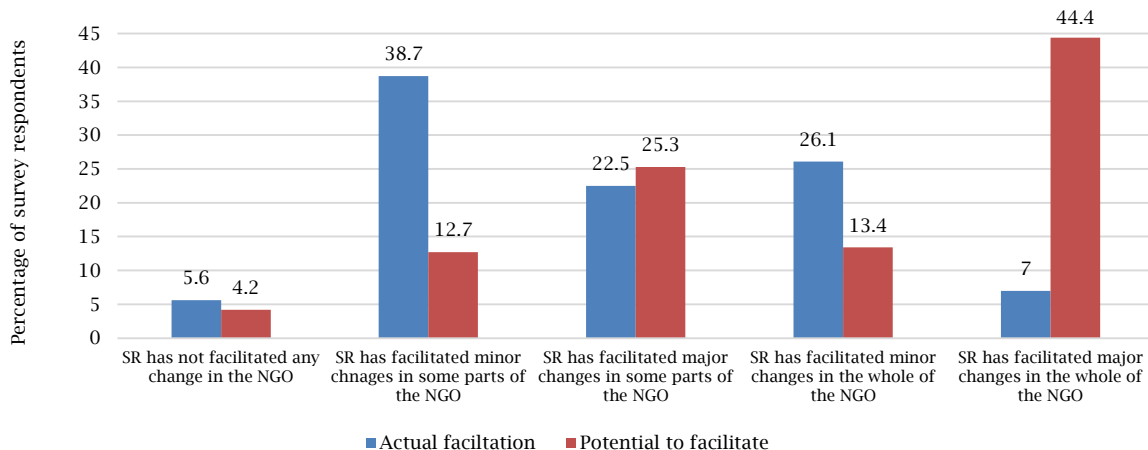
This suggests that SR did not induce significant changes in the NGOs as a whole compared with its potential to facilitate changes, although there were changes in some aspects of the NGO operations. Forty-four percent of the respondents indicated that SR had the potential to facilitate major changes in the whole of NGOs, while 25% indicated that it had the potential to facilitate minor changes in some parts of NGOs. The majority of the respondents agreed that SR had the potential to induce changes in the NGO as a whole.

To further understand the aspects of NGOs where SR has facilitated changes, the survey asked respondents to indicate its influence in some specific aspects of the NGO (Figure 5). The result shows that SR has had a major influence on donors (84%), management decisions (79%) and organizational culture (56%). The majority of the respondents indicated that it had a minor influence on employees (67%), while 55% of the respondents said that SR did not influence the government at all. The respondents also identified which aspect of SR practice shows more impact. For instance, 68% of the respondents agreed or strongly agreed that the social impact of SR was high, relative to the economic impact (56%), environmental impact (48%). Thirty-three percent of the respondents also rated NGOs' governance impact on the society. This suggests that the social contribution of NGOs in society is higher, followed by the economic contributions. Respondents also highlighted some specific benefits resulting from SR practices.

• One is the opportunity for cost and benefit evaluation; for example, "*An important lesson from SR is that it enables cost estimation vis-a-vis the benefits to the society, this cost baseline is important for planning and policy mechanisms*".

• Another is skill transfer and self-reliance; for example, "*Our major strength gained through SR is having local partners whose capacity is almost at par with ours*".

• Third, SR can foster attitudinal change towards sustainability and ownership; for example, "*…what we have learnt is a change of approach,

our approach is all-encompassing, involving the government from the beginning, we are doing it together in such a way that even when the NGOs are no more there, the government knows what to do or is expected to know what to do and they can continue on the understanding that the project belongs to them*".

• A fourth benefit is adequate stakeholder engagement; for example, "*SR has facilitated stakeholder engagement and dialogue, I am aware that we are required by the donors to identify the effects of our activities on the environment and the mitigation steps we are taking*".

• Fifthly, SR generates increased funding opportunities; for example, "*Donors will not even give you money without seeing your sustainability plan, in our case, donors have seen what we are doing right, verifiable by them and are able to give us more projects. For instance, I remember what we did in the transport project and not only did the donors increase the funding and scope, other people gave us transport projects to do*". Other indicative benefits include efficiency, effectiveness, accountability, and so on.

A quotation from one of the respondents provides a good summary of the lessons espoused through SR, when asked if there are lessons for other organisations from their experiences: "*Yes certainly, but I will need to know what others are doing, so maybe instead of learning from us, we will learn from them…[laughs]! One of the things I think has helped us here is our transparent system, we are tight on it, we try to eliminate wastages or resources; because it is donor-funded, there is a huge drive for achievement, with a very short timeframe passed on NGOs. A lot of NGOs throw resources in pursuit of targets, while a little more adjustment could achieve the same target with much fewer resources, So I think it is something other NGOs could key into because at the end of the day if anything we do here is going to be sustainable, it must be funded along the same budgetary line that the government can comfortably accommodate, this will not only ensure sustainability but will facilitate reporting of it*".

Figure 5. Survey results showing the influence of SR
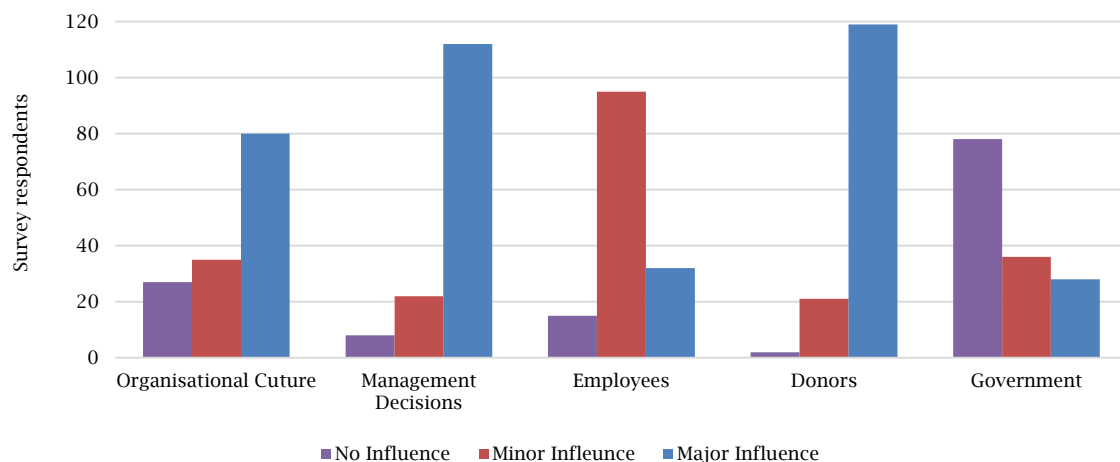
4.3. Barriers to learning and change in the SR process

The major barrier identified by the respondents had to do with issues of uniform indicators for reporting on sustainability. Respondents indicated that different NGOs had different and sometimes multiple indicators for a reporting category, which negatively affected sustainability performance in NGOs, especially the data collection process. This subsequently led to other issues such as verifiability, legitimacy of reports, standardisation and comparability. For example, "*Different NGOs adopt different metrics for reporting on a particular item which is the biggest challenge to our sustainability efforts, ethical fundraising, procurement or resource allocation is a typical example under economic activities*". This results in inconsistency and the long-run effect on the data collection process and the verifiability of the report is high. For instance, it affects the policy mechanism and development decision-making process of NGOs which is central to the social mission of NGOs towards achieving sustainable development (especially in developing countries). Suitable support on how NGOs can circumvent this will reposition their efforts towards sustainability and organisational learning and change. Other barriers identified by the respondents were concerned with: 1) assurance for sustainability reports; 2) voluntary reporting; 3) government policies/interests/local laws; 4) community interest; 5) GRI guidelines; 6) basic knowledge/experience needed to prepare the report; 7) overbearing interest of donors; 8) cost of preparing the report; 9) national culture; 10) religion; and so on.

The survey provided the opportunity for respondents to suggest solutions to the identified barriers to SR practices. The suggested solutions were synthesised and a summary of them is presented in Table 2 below.

Table 2. The solution to the challenges

Challenges to SR practices	Suggested solutions
Lack of uniform indicator	Nationally adaptive and sector-specific reporting platform that is stakeholder-oriented and guarantees or provides uniform metrics for reporting in NGO.
Voluntary reporting practice	Mandatory reporting — legislation that compels every NGO to prepare and report on sustainability.
Lack of basic knowledge for SR report preparation	Training and manpower development as well as management support.
Overbearing donor interest	Donors should make targets that are specific and attainable within the timeframe to avoid pressure and over-emphasis on results. Alternatively, government attention to the needs of the society through the provision of basic infrastructure and general improvement in the living standard of people will lessen overdependence on donors' funds, especially foreign donors. The synergistic approach of NGOs through public-private partnership (PPPs) can also play a significant role.
Conflicting community interest	Proper engagement and creation of awareness.
Issues of assurance for the report	External verification of reports that provides third party assurance.
Difficulties in GRI guidelines	Sector-specific and easy-to-follow guidelines.
Cost	Budgeting and planning.
Unsupportive government policies	Attention to the needs of the society through the provision of basic infrastructure and general improvement in the living standard of people in place of attempts to gain control of NGO/donor funds.
Issues of national culture	Sensitisation and respect for people's culture and belief systems. Reports can be made to be consistent with people's way of life.
Issues of religion	Sensitisation and ensuring religion-neutral reports, especially in religion-sensitive countries in Africa and Asia

4.4. Inferential statistics exploring the influence of SR on organisational change in NGOs

Table 3 shows the correlation between SR-related changes and other SR roles (perceived) for some important correlations (Table A.4 in Appendix). The table shows that the desire to foster change through SR was strongly associated with the desire to assess and communicate NGO activities ($r = 0.562$, $p < 0.001$), to promote NGO sustainability efforts ($r = 0.549$, $p < 0.004$), to improve transparency ($r = 0.512$, $p < 0.004$), and to substantiate NGO position as a sustainability leader ($r = 0.456$, $p < 0.001$). This finding suggests that NGOs may have used organisational change to champion sector relevance. This is further supported by the strong link between the intention to promote sustainability efforts and the perceived need to substantiate an NGO's position as a sustainability leader ($r = 0.537$, $p < 0.001$). Further, NGOs aimed at becoming sustainability leaders by improving their transparency ($r = 0.544$, $p < 0.001$). Perceived desire to improve their image and reputation was moderately associated with the desire to improve transparency ($r = 0.449$, $p < 0.004$), and improve their position as sustainability leaders ($r = 0.484$, $p < 0.013$). These findings show that, just like corporate organisations (Domingues et al., 2017), NGOs pursued different goals through SR in accordance with their diversity and could further establish their relevance through SR practices.

Interestingly, none of the perceived roles or expectations of SR were met (hence $r < 1$). Table 4 shows the correlation between the perceived role of SR and the actual role (see Table A.5). The capacity of SR to assess and communicate NGO activities ($r = 0.452$, $p < 0.002$), promote an NGO's sustainability efforts ($r = 0.532$, $p < 0.013$), and improve NGO transparency ($r = 0.472$, $p < 0.041$) was strong. The same findings applied to its capacity to enhance stakeholder engagement and dialogue ($r = 0.515$, $p < 0.001$), foster change towards sustainability ($r = 0.578$, $p < 0.006$), and raise employee awareness of SR ($r = 0.432$, $p < 0.001$).

Table 3. Correlation between SR-related change and other SR roles for some important correlations

Perceived role of SR	*Assess and communicate NGO activities*	*Promote NGO's sustainability effort*	*Improve org. image & reputation*	*Improve transparency of NGO sustainability performance*	*Promote & substantiate NGO position as a sustainability leader*
Foster change towards sustainability	r = 0.562 p < 0.001	r = 0.549 p < 0.004	r = 0.389 p < 0.035	r = 0.512 p < 0.034	r = 0.456 p < 0.001
Assess and communicate NGO activities		r = 0.524 p < 0.002	r = 0.376 p < 0.000	r = 0.388 p < 0.025	r = 0.466 p < 0.001
Promote NGO's sustainability efforts			r = 0.387 p < 0.022	r = 0.457 p < 0.004	r = 0.537 p < 0.001
Improve org. image & reputation				r = 0.449 p < 0.004	r = 0.484 p < 0.013
Improve transparency of NGO sustainability performance					r = 0.544 p < 0.001

The change through sustainability efforts helped to enhance the assessment and communication of NGO activity (r = 0.539, p < 0.001), and raising employee awareness about measures to enhance sustainability performance helped to increase communication of NGO activities (r = 0.575, p < 0.037). This suggests that SR helps improve organisational performance. In addition to this, the enhanced ability to assess and communicate NGO activity has helped to improve corporate sustainability through enhanced stakeholder engagement and dialogue (r = 0.492, p < 0.022), and foster change towards sustainability (r = 0.421, p < 0.008).

The promotion of sustainability efforts has helped NGOs to improve their transparency (r = 0.446, p < 0.003), and also aided stakeholder engagement and dialogue. This suggests that change was actively used to promote some corporate sustainability agendas among stakeholders. This is proven by the strong link between stakeholder engagement and raising employee awareness (r = 0.534, p < 0.001).

In general, findings support the inference that by engaging in SR, NGOs were able to pursue and achieve several objectives in line with their social mission and in accordance with their assumed position of sustainability crusaders. For example, the survey result indicates that through SR, NGOs were better positioned to communicate their social and environmental impact and project outcomes which would otherwise be difficult to properly document in traditional reports.

Table 4. Correlation between the actual roles of SR and its perceived roles for some important correlations

Perceived roles of SR	*Actual roles of SR*					
	Assess and communicate NGO activities	*Promote NGO's sustainability effort*	*Improve transparency of NGO sustainability performance*	*Enhance stakeholder engagement and dialogue*	*Foster change towards sustaina-bility*	*Raise employee awareness about measures to enhance performance*
Assess and communicate NGO activities	r = 0.452 p < 0.002	r = 0.539 p < 0.001	r = 0.231 p < 0.006	r = 0.492 p < 0.022	r = 0.421 p < 0.008	r = 0.575 p < 0.037
Promote NGO's sustainability efforts		r = 0.532 p < 0.013	r = 0.446 p < 0.003	r = 0.513 p < 0.001	r = 0.432 p <0.005	r = 0.586 p < 0.025
Improve transparency of NGO sustainability performance			r = 0.472 p < 0.041	r = 0.341 p < 0.001	r = 0.431 p < 0.016	r = 0.322 p < 0.001
Enhance stakeholder engagement and dialogue				r = 0.515 p < 0.001	r = 0.368 p < 0.013	r = 0.534 p < 0.001
Foster change towards sustainability					r = 0.578 p < 0.036	r = 0.311 p < 0.000
Raise employee awareness about measures to enhance performance						r = 0.432 p < 0.001

5. DISCUSSION OF THE RESULTS

As highlighted in the literature, SR has not gained as much prominence in NGOs compared to private and public sector organisations (Crespy & Miller, 2011; Giacomini et al., 2018; Hahn & Kühnen, 2013; Herremans et al., 2016). This is further confirmed by the number of NGOs found to be actively involved in SR in the study population. However, SR is increasingly embraced in NGOs, and more so in developing countries. Most of the NGOs covered in this research have published sustainability reports for the last 5 years.

The result highlighted that international NGOs were more inclined to the concept of SR compared to the local NGOs. These international NGOs are mostly from Europe and America. This aligns with the findings of Lozano et al. (2016) who assert that European countries are far ahead in preparing and conducting research on sustainability reports. It also confirmed the argument in literature which highlights that Europe and America are at the forefront in organizing and developing sustainability reports, contrary to the findings of de Oliveira Neto et al. (2014) and Frynas (2001).

Most of the respondents stated that there was no unit or department directly responsible for SR; the few (28%) that had a unit for developing and reporting on sustainability linked it with the M&E unit. Although Schaltegger and Wagner (2006) opposed the designation of a specific unit for sustainability, arguing that such would lead to compartmentalisation of the process, this is not the case for NGOs. This is, firstly, because the respondents highlighted that data for SR is provided by each sub-team carrying out a particular

project which is later harmonised for the process of SR. Secondly, since the NGOs seek legitimacy through SR which lies in the hands of the stakeholder (public), it would be counterproductive for any unit to display prejudice towards the report (Dewi et al., 2019).

In line with the findings in the literature (Lozano et al., 2016), NGO type (welfare or advocacy) or its divisional impact (economic, social or environmental) and size play a minor or no role in the decision of NGOs to start SR. Findings suggest that the NGOs engage in SR in pursuit of multiple goals summarised under organisational relevance. They range from legitimacy, desire to assess and communicate NGO activities, organisational reputation, transparency, and need to foster change, to stakeholder engagement/dialogue as well as widening donations. Others include the need to transfer skills and improve the quality of service delivery. These factors align with the objectives of SR as highlighted by the respondents.

The results show that SR has a great influence on donors, followed by management decisions and organisational culture. This is not surprising since the respondents claimed earlier that donors will not even fund an NGO that has no clear sustainability plan. It follows that an organisation that wants to foster legitimacy, and enhance donor base, reputation and quality by espousing its sustainability efforts would have its influence on management decisions and organisational culture. This is a pointer that external stakeholders (such as donors) exert a high level of influence on NGOs and suggests that the need to satisfy or attract donors gave rise to SR rather than SR giving rise to enhanced donation. Findings also show that sustainability reporting does not influence the government actions (according to 34% of respondents). This might have to do with the peculiarities of the country in context since the result suggests that the impact of SR on governance is low when compared to its impact on social, environmental and economic aspects of the reporting framework.

The findings show that SR has mostly facilitated minor changes in the NGOs. Nevertheless, it has the potential to facilitate major changes in the whole of the NGOs, suggesting that the full potential of SR is yet untapped in NGOs. This is consistent with the findings of Banks et al. (2015), Kuruppu and Lodhia (2019) and Goddard (2021). Banks et al. (2015) further cautioned that the real drivers of social change may be difficult for NGOs to sway if urgent steps are not taken to better reposition them for this role. These visible changes have been facilitated through the influence of the donors and the management. Anecdotal evidence suggests that there is a positive relationship between SR and organisational change. However, this research presents an in-depth, content-rich analysis of the potential of SR for organisational change by exploring the link between the two. Findings suggest that SR started as a driver for change in NGOs and ends as change itself (Lozano, 2013; Lozano et al., 2016). As demonstrated in Figure 1, SR has a reciprocal relationship with organisational change. This is espoused through assessment and communication of sustainability efforts as well as fostering change towards sustainability.

The survey results highlighted the perceived roles of SR versus its actual roles. This result shows

that although NGOs seem to be achieving their objectives through SR, more could be achieved. This finding is supported by the result presented under the change facilitated through SR which indicates that SR has the potential to facilitate major changes in the whole of NGOs. Unlike the result of Lozano et al. (2016), the respondents stated that NGOs have a reporting criterion handed down by donors through the managers and did not specifically seek to meet the GRI criteria for reporting on sustainability. Moreover, the respondents stated that since SR is voluntary and GRI posed a challenge as indicated in the result section, it was not necessary to pursue this goal. This finding is supported by the result of Farneti and Guthrie (2009) and Domingues et al. (2017) who explored the relationship between the reporting process and change in public sector organisations and found that GRI guidelines constituted a challenge in the reporting process of public sector organisations.

The results show that the lack of uniformity of reports resulting from the use of different indicators for reporting constituted the greatest barrier to sustainability efforts by NGOs. Several other challenges to sustainability performance in NGOs were highlighted below:

1. *Lack of assurance for SR.* Respondents stated that there was a need to provide third party assurance for sustainability reports to enhance their acceptability by the public.

2. *Voluntary reporting.* Reporting on sustainability remained a voluntary process, although some respondents highlighted that this particular challenge did not apply to them since they have internally made reporting on sustainability mandatory.

3. *Government policies/interests/local laws.* Unsupportive government policies affect reporting processes, especially in developing countries with weak legal and regulatory institutions where the government sometimes attempts to gain control of or access to funding of NGOs through functions such as regulation, legislation, or oversight.

4. *Community interest.* Sometimes, the interest of the local community is diverse and often conflicting. For example, a respondent explained that a certain community with no potable water was provided with a source and a few months later, it was discovered that it had been abandoned. Inquiries revealed different and conflicting reasons between the men and the women in the community. While the men explained that they preferred the tap in a different location farther away from their residence to enable them to spend time with their wives when the children went to fetch water, the women explained that they wanted a place where they could sit and share their worries and family challenges with their peers.

5. *GRI guideline.* Respondents complained that the GRI guideline is corporate sector-focused and does not comprehensively address issues of reporting concern to NGOs, thereby making it difficult to choose indicators.

6. CONCLUSION

Although the literature indicates that NGOs lag behind the public and private sectors, it has continued to witness continuous growth which has espoused learning and innovation in NGOs. Despite

this, research that explores the influence of SR on organisational learning and change in NGOs has been lacking or non-existent. This research explores the influence of SR on organisational learning and change in NGOs. This is done by providing insights into the relationship between SR and change in NGOs.

The findings show that the motivation to publish the first report was mainly driven by external pressure while subsequent reporting was internally motivated. This is with the help of employees as well as NGO leaders and managers as the players. This provided opportunities for continuous improvement through an enhanced reporting metric system, access to data and improved budgetary framework, organisational legitimacy, reporting quality, and enhanced communication channels. As this research was conducted during the COVID-19 pandemic, the major limitation of the study centered on getting NGO managers to complete the survey as they faced increased pressure for their services resulting from the pandemic. This was circumvented by sending the survey electronically; however, this process took longer time than originally expected.

The result shows that SR and organisational learning or change are mutually inclusive in NGOs as well as sharing a reciprocal relationship that begins as the driver for learning and ends as the change. This reciprocal relationship is repetitive and improves the reporting process through enhanced sustainability performance. It fosters opportunities for cost and benefit evaluation, transfer of skill and innovation, attitudinal change towards sustainability, stakeholder engagement and ownership, and increased donor base.

The findings demonstrate the influence of SR on organisational culture, donor behaviour and management decisions. The study also articulates lessons from NGOs' sustainability efforts that other NGOs or private sector organisations could learn from, which include routine report tracking, planning and budgeting, cross-learning and inter-agency collaboration, community involvement that enhances local capacity development, and PPP.

Results show that NGOs could champion their sector's relevance through SR; as such, they would be able to improve their transparency, substantiate their position as sustainability leaders, improve organisational image and reputation, and enhance their accountability. There is an interlinkage between the desire to advance sustainability efforts in NGOs and the need to foster innovation, learning and change in NGOs. Therefore, for NGOs to be more sustainability-focused, it is important to assess the efforts through learning and changes they espouse.

The survey results show that a lack of suitable support for SR metrics that are not only industry-specific but nationally contextualised to suit the reporting environment could affect the efforts of NGOs towards developing and organising sustainability in NGOs. Respondents stated that this is the greatest challenge they face in their sustainability reporting process. Lack of explicit indicators can impact the uptake of sustainability reporting; moreover, it must be mentioned that the indicators do not equally apply to all reporting entities, but could vary depending on the area of operation, economy and even country or region of operation. Since NGOs assert their relevance through SR by championing policy mechanisms, and development of decision-making frameworks through their pivotal role in the social and economic development of nations, it is critical to have stakeholder-driven and participatory reporting metrics for SR purposes.

Although SR is voluntary, NGOs have made commendable efforts to prove that it is sustainability-oriented; however, there is a need for continuous assessment of these efforts and to further align the outcome to the social mission of NGOs. Further research could explore how this relationship could communicate strategies for strong sustainability and/or towards improved beneficiary relationships. Additionally, to fully understand the mechanism of SR in NGOs, it is important to holistically examine the role that donors play towards sustainability efforts and the synergistic relationship between the managerial and operational elements of NGOs. Further research could examine stakeholders' involvement in SR, this will help prove or disprove the sentiment expressed towards the supply-side stakeholders such as donors in NGOs.

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APPENDIX

Table A.1. Definition of codes and other acronyms

Code	Definition	Code	Definition
R1	Mechanism for assessing & communicating NGO activity	R11	Facilitate external auditing of NGO sustainability efforts
R2	Promote NGO sustainability efforts	R12	Meet criteria set out by GRI guidelines
R3	Create external value for the ecosystem	R13	Foster change towards sustainability
R4	Minimise negative environmental impact	R14	Achieve organizational legitimacy
R5	Improve organizational image and reputation	R15	Raise employee awareness about measures to enhance performance
R6	Improve transparency of NGO sustainability performance	R16	Manage impression of others towards NGO
R7	Propagate and endorse good practice	R17	Promote and substantiate NGO position as sustainability leaders
R8	Assess cost and benefit of sustainability efforts	R18	Enhance credibility, visibility and relevance
R9	Enhance stakeholder engagement and dialogue	SR	Sustainability reporting
R10	Widen donor base	M&E	Monitoring and evaluation

Table A.2. Variables for the SR process

Variable	Possible values
Assessment and communication of sustainability efforts in the NGO • Institutional framework • Operations • Management and strategy • Organisational systems	Likert scale
SR perceived role/actual role • Mechanism for assessing & communicating NGO activity • Promote NGO sustainability efforts • Create external value for the ecosystem • Minimise negative environmental impact • Improve organizational image and reputation • Improve transparency of NGO sustainability performance • Propagate and endorse good practice • Assess cost and benefit of sustainability efforts • Enhance stakeholder engagement and dialogue • Widen donor base • Facilitate external auditing of NGO sustainability efforts • Meet criteria set out by GRI guidelines • Foster change towards sustainability • Achieve organizational legitimacy • Raise employee awareness about measures to enhance performance • Manage impression of others towards NGOs • Promote and substantiate NGO position as sustainability • Enhance credibility, visibility and relevance of NGOs	Likert scale

Table A.3. Variables used for organizational change in NGO in line with literature

Variables	Values
Change facilitation by SR (perceived /actual)	• Has not facilitated any change/innovations in the NGO • Has facilitated minor changes/innovations in some parts of the NGO • Has facilitated major changes/innovations in some parts of the NGO • Has facilitated minor changes/innovations in the NGO as whole • Has facilitated major changes/innovations in the NGO as a whole
NGO impact on the society • Environmental impact • Social impact • Economic impact • Governance impact	Likert scale
Level of SR influence • On organizational culture • On management (decision) • On employees (behaviour) • On donors • On government	Major influence — Minor influence — No influence

Table A.4. Correlation for perceived changes

		PR1	PR2	PR3	PR4	PR5	PR6	PR7	PR8	PR9	PR10	PR11	PR12	PR13	PR14	PR15	PR16	PR17	PR18
PR1	Pearson correlation	1	0.524**	0.169*	0.214	0.376**	0.388*	0.199*	-0.014	-0.052	0.039	0.288**	-0.112	0.062	0.187*	0.029	0.044	0.466**	0.079
	Sig. (2-tailed)		0.002	0.045	0.075	0.000	0.025	0.017	0.872	0.540	0.645	0.007	0.185	0.462	0.031	0.732	0.602	0.001	0.352
PR2	Pearson correlation	-0.040	1	0.100	0.043	0.387*	0.457**	-0.010	0.117	0.316*	0.026	0.037	0.188*	0.009	0.006	0.053	-0.036	0.537**	0.057
	Sig. (2-tailed)	0.632		0.237	0.610	0.022	0.004	0.905	0.167	0.011	0.757	0.662	0.025	0.918	0.947	0.531	0.669	0.001	0.500
PR3	Pearson correlation	0.269**	0.100	1	-0.240**	0.065	-0.111	0.091	0.055	0.235*	-0.015	-0.050	0.027	-0.118	0.139	0.032	0.033	-0.056	0.062
	Sig. (2-tailed)	0.001	0.237		0.004	0.440	0.187	0.280	0.517	0.024	0.858	0.553	0.754	0.162	0.099	0.701	0.694	0.506	0.465
PR4	Pearson correlation	-0.114	0.043	-0.240**	1	0.111	0.111	-0.025	0.237**	0.029	0.090	0.024	0.139	0.248**	0.053	-0.030	0.081	0.025	-0.037
	Sig. (2-tailed)	0.175	0.610	0.004		0.187	0.189	0.768	0.005	0.729	0.285	0.780	0.099	0.003	0.528	0.722	0.339	0.768	0.661
PR5	Pearson correlation	0.075	0.103	0.065	0.111	1	0.449**	-0.004	0.354**	-0.003	0.249**	0.110	0.010	0.057	0.067	0.108	-0.012	0.484*	0.145
	Sig. (2-tailed)	0.376	0.222	0.440	0.187		0.004	0.962	0.001	0.968	0.003	0.192	0.902	0.497	0.427	0.200	0.888	0.013	0.085
PR6	Pearson correlation	0.188*	-0.050	-0.111	0.111	0.357**	1	-0.050	0.094	0.025	0.127	0.135	0.022	0.263*	0.020	-0.015	0.149	0.544**	0.070
	Sig. (2-tailed)	0.025	0.557	0.187	0.189	0.004		0.555	0.267	0.768	0.131	0.109	0.794	0.015	0.809	0.863	0.078	0.001	0.408
PR7	Pearson correlation	0.199*	-0.010	0.091	-0.025	-0.004	-0.050	1	-0.176*	-0.029	0.115	-0.117	0.037	-0.088	0.041	-0.002	0.186*	-0.003	0.082
	Sig. (2-tailed)	0.017	0.905	0.280	0.768	0.962	0.555		0.036	0.732	0.172	0.164	0.665	0.298	0.631	0.981	0.027	0.968	0.333
PR8	Pearson correlation	-0.014	0.117	0.055	0.237**	0.060	0.094	0.176*	1	-0.011	0.229**	-0.040	0.078	0.111	0.324*	0.082	0.007	0.058	0.037
	Sig. (2-tailed)	0.872	0.167	0.517	0.005	0.481	0.267	0.036		0.896	0.006	0.640	0.355	0.187	0.034	0.329	0.930	0.490	0.662
PR9	Pearson correlation	-0.052	-0.016	0.009	0.029	-0.003	0.025	-0.029	-0.011	1	0.015	-0.053	0.038	-0.047	0.020	0.087	0.032	0.025	-0.047
	Sig. (2-tailed)	0.540	0.846	0.920	0.729	0.968	0.768	0.732	0.896		0.858	0.535	0.650	0.577	0.811	0.304	0.707	0.769	0.578
PR10	Pearson correlation	0.039	0.026	-0.015	0.090	0.249**	0.127	0.115	0.229**	0.015	1	-0.283**	-0.112	0.020	0.047	0.147*	0.036	0.077	-0.021
	Sig. (2-tailed)	0.645	0.757	0.858	0.285	0.003	0.131	0.172	0.006	0.858		0.001	0.183	0.814	0.577	0.013	0.666	0.365	0.807
PR11	Pearson correlation	0.037	0.037	-0.050	0.024	-0.110	0.135	-0.117	-0.040	-0.053	-0.283**	1	0.171*	-0.011	0.137	0.024	-0.039	0.039	0.097
	Sig. (2-tailed)	0.661	0.662	0.553	0.780	0.192	0.109	0.164	0.640	0.535	0.001		0.042	0.899	0.104	0.774	0.645	0.647	0.249
PR12	Pearson correlation	-0.112	0.188*	0.027	0.139	0.010	0.022	0.037	0.078	0.038	-0.112	0.171*	1	-0.046	0.023	0.043	0.047	0.180*	-0.026
	Sig. (2-tailed)	0.185	0.025	0.754	0.099	0.902	0.794	0.665	0.355	0.650	0.183	0.042		0.589	0.788	0.609	0.580	0.032	0.759
PR13	Pearson correlation	0.562**	0.549**	-0.118	0.248**	0.389*	0.212*	-0.088	0.111	-0.047	0.020	-0.011	-0.046	1	-0.169*	0.095	-0.147	0.456**	-0.067
	Sig. (2-tailed)	0.001	0.004	0.162	0.003	0.035	0.034	0.298	0.187	0.577	0.814	0.899	0.589		0.045	0.262	0.081	0.001	0.427
PR14	Pearson correlation	0.087	0.006	0.139	0.053	0.067	0.020	0.041	0.000	0.020	0.047	0.137	0.023	-0.169*	1	0.010	0.086	0.022	0.036
	Sig. (2-tailed)	0.301	0.947	0.099	0.528	0.427	0.809	0.631	10.000	0.811	0.577	0.104	0.788	0.045		0.906	0.307	0.794	0.671
PR15	Pearson correlation	-0.029	0.053	0.032	-0.030	0.108	-0.015	-0.002	0.082	0.087	0.147	0.024	0.043	0.095	0.010	1	-0.359**	0.176*	-0.025
	Sig. (2-tailed)	0.732	0.531	0.701	0.722	0.200	0.863	0.981	0.329	0.304	0.080	0.774	0.609	0.262	0.906		0.000	0.036	0.770
PR16	Pearson correlation	-0.044	-0.036	0.033	0.081	-0.012	0.149	0.186*	0.007	0.032	0.036	-0.039	0.047	-0.147	0.086	-0.359**	1	-0.319**	0.099
	Sig. (2-tailed)	0.602	0.669	0.694	0.339	0.888	0.078	0.027	0.930	0.707	0.666	0.645	0.580	0.081	0.307	0.000		0.000	0.243
PR17	Pearson correlation	0.094	0.024	-0.056	0.025	0.111	0.064	-0.003	0.058	0.025	0.077	0.039	0.180*	0.026	0.022	0.176*	-0.319**	1	0.007
	Sig. (2-tailed)	0.266	0.775	0.506	0.768	0.188	0.450	0.968	0.490	0.769	0.365	0.647	0.032	0.755	0.794	0.036	0.000		0.937
PR18	Pearson correlation	0.079	0.057	0.062	-0.037	0.145	0.070	0.082	0.037	-0.047	-0.021	0.097	-0.026	-0.067	0.036	-0.025	0.099	0.007	1
	Sig. (2-tailed)	0.352	0.500	0.465	0.661	0.085	0.408	0.333	0.662	0.578	0.807	0.249	0.759	0.427	0.671	0.770	0.243	0.937	

*Note: * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed). Number of respondents = 142.*

Table A.5. Correlation for perceived changes

		R1	R2	R3	R4	R5	R6	R7	R8	R9	R10	R11	R12	R13	R14	R15	R16	R17	R18
R1	Pearson correlation	0.452*	0.539**	0.113	0.029	-0.039	0.231**	-0.035	0.021	0.492*	0.059	-0.135	0.032	0.421**	0.038	0.575*	0.051	-0.068	0.279*
	Sig. (2-tailed)	0.002	0.001	0.181	0.733	0.647	0.006	0.679	0.805	0.022	0.489	0.109	0.703	0.008	0.652	0.037	0.549	0.422	0.05
R2	Pearson correlation	0.114	0.532**	0.121	-0.207*	-0.164	0.446**	-0.072	-0.024	0.513*	0.059	0.107	0.039	0.432**	-0.036	0.586*	0.165*	-0.019	-0.122
	Sig. (2-tailed)	0.176	0.013	0.151	0.014	0.052	0.003	0.392	0.776	0.001	0.482	0.207	0.645	0.005	0.670	0.025	0.050	0.824	0.147
R3	Pearson correlation	0.136*	-0.081	0.051	-0.056	-0.161	-0.075	-0.150	-0.008	0.126*	0.081	-0.184*	0.018	0.125	-0.103	-0.070	-0.003	-0.073	-0.020
	Sig. (2-tailed)	0.027	0.338	0.546	0.511	0.055	0.373	0.074	0.923	0.013	0.339	0.029	0.831	0.140	0.221	0.410	0.971	0.387	0.814
R4	Pearson correlation	-0.073	0.076	-0.054	0.017	-0.029	-0.138	0.097	-0.155		-0.058	0.074	-0.045	0.050	-0.047	-0.064	0.012	0.030	-0.049
	Sig. (2-tailed)	0.390	0.366	0.526	0.840	0.731	0.100	0.253	0.066	0.407	0.494	0.384	0.594	0.554	0.576	0.447	0.884	0.727	0.559
R5	Pearson correlation	0.134	-0.136	-0.114	-0.168*	0.059	-0.016	-0.043	0.100	-0.099	0.050	-0.043	0.110	0.091	0.118	0.095	-0.081	0.059	0.006
	Sig. (2-tailed)	0.113	0.107	0.176	0.046	0.482	0.853	0.613	0.234	0.240	0.551	0.612	0.192	0.284	0.162	0.259	0.341	0.488	0.945
R6	Pearson correlation	-0.094	0.010	0.024	0.110	0.179*	0.472*	0.018	-0.068	0.341**	-0.043	0.211*	-0.096	0.231*	0.050	0.322*	0.013	-0.177*	0.052
	Sig. (2-tailed)	0.268	0.906	0.776	0.192	0.033	0.041	0.829	0.424	0.001	0.609	0.012	0.254	0.016	0.551	0.001	0.876	0.035	0.543
R7	Pearson correlation	-0.076	-0.089	0.066	0.079	-0.066	0.070	0.037	0.055	-0.023	0.037	-0.164	0.020	0.073	0.145	0.327*	0.010	0.013	0.063
	Sig. (2-tailed)	0.368	0.295	0.435	0.352	0.438	0.409	0.666	0.516	0.788	0.662	0.052	0.814	0.385	0.084	0.043	0.905	0.878	0.455
R8	Pearson correlation	0.011	-0.011	0.086	-0.143	-0.012	-0.090	-0.140	-0.095	-0.005	0.062	-0.021	0.073	0.067	-0.107	-0.147	-0.017	0.069	-0.069
	Sig. (2-tailed)	0.893	0.897	0.310	0.090	0.883	0.287	0.097	0.259	0.952	0.460	0.803	0.389	0.426	0.207	0.081	0.845	0.418	0.415
R9	Pearson correlation	-0.013	-0.022	0.057	0.059	0.045	-0.145	0.159	-0.004	0.515**	0.126	-0.039	0.068	0.368*	0.045	0.534**	0.121*	0.050	0.128
	Sig. (2-tailed)	0.875	0.795	0.497	0.485	0.598	0.086	0.059	0.960	0.001	0.136	0.646	0.422	0.013	0.599	0.001	0.046	0.555	0.130
R10	Pearson correlation	-0.002	0.025	0.042	-0.043	0.030	-0.043	0.004	0.043	-0.051	0.045	-0.001	0.070	-0.108	0.008	-0.051	0.046	-0.212*	-0.003
	Sig. (2-tailed)	0.981	0.766	0.621	0.610	0.721	0.614	0.963	0.614	0.545	0.594	0.994	0.407	0.202	0.924	0.545	0.586	0.011	0.976
R11	Pearson correlation	0.017	0.007	-0.101	0.098	0.122	-0.077	0.134		0.012	0.009	0.087	0.048	0.006	-0.123	-0.072	-0.061	-0.082	-0.065
	Sig. (2-tailed)	0.841	0.933	0.230	0.246	0.147	0.361	0.113	0.391	0.889	0.918	0.301	0.571	0.946	0.144	0.395	0.472	0.331	0.440
R12	Pearson correlation	0.138	-0.050	-0.017	-0.147	-0.018	-0.125	-0.019	-0.143	0.040	-0.016	0.066	-0.054	-0.047	-0.165	0.154	-0.117	-0.099	-0.014
	Sig. (2-tailed)	0.102	0.551	0.843	0.081	0.827	0.138	0.819	0.090	0.638	0.846	0.433	0.523	0.575	0.050	0.068	0.164	0.240	0.867
R13	Pearson correlation	0.050	0.109	0.021	-0.139	-0.163	0.080	0.031	0.033	-0.126	0.134	0.007	-0.147	0.578*	0.081	0.311**	0.091	0.025	0.126
	Sig. (2-tailed)	0.552	0.198	0.803	0.099	0.053	0.344	0.711	0.696	0.134	0.111	0.935	0.082	0.036	0.339	0.000	0.284	0.770	0.135
R14	Pearson correlation	0.037	-0.101	-0.062	0.036	-0.111	-0.036	-0.063	-0.009	-0.103	0.053	-0.023	0.025	0.146	-0.215*	-0.121	0.017	0.017	-0.150
	Sig. (2-tailed)	0.658	0.232	0.465	0.669	0.189	0.670	0.458	0.917	0.222	0.530	0.786	0.768	0.083	0.010	0.153	0.844	0.844	0.074
R15	Pearson correlation	-0.006	0.087	0.104	-0.145	-0.022	0.019	0.074	0.083	0.091	0.118	-0.123	-0.064	0.014	0.097	0.432*	0.069	-0.021	-0.090
	Sig. (2-tailed)	0.944	0.304	0.216	0.084	0.797	0.823	0.381	0.329	0.282	0.163	0.145	0.450	0.868	0.251	0.001	0.413	0.805	0.289
R16	Pearson correlation	0.018	-0.170*	-0.092	0.047	-0.060	-0.008	-0.017	-0.143	-0.123	0.064	0.053	-0.135	-0.160	0.161	0.029	-0.092	-0.100	0.325**
	Sig. (2-tailed)	0.836	0.043	0.278	0.578	0.481	0.927	0.845	0.090	0.144	0.447	0.531	0.109	0.057	0.055	0.733	0.278	0.235	0.006
R17	Pearson correlation	-0.021	0.052	0.146	-0.149	0.004	-0.044	0.016	0.048	0.063	-0.041	-0.061	-0.007	0.014	-0.146	-0.004	-0.017	-0.116	0.428**
	Sig. (2-tailed)	0.805	0.543	0.082	0.077	0.960	0.603	0.846	0.569	0.458	0.625	0.473	0.935	0.872	0.084	0.962	0.843	0.271**	0.005
R18	Pearson correlation	0.125	-0.111	0.013	0.020	-0.016	0.012	-0.086	0.012	0.050	0.141	-0.166*	0.106	-0.049	-0.072	-0.043	-0.090	-0.001	0.329*
	Sig. (2-tailed)	0.138	0.188	0.877	0.816	0.853	0.888	0.308	0.888	0.554	0.095	0.048	0.209	0.559	0.391	0.609	0.285	0.937	0.015

*Note: * Correlation is significant at the 0.05 level (2-tailed). ** Correlation is significant at the 0.01 level (2-tailed). Number of respondents = 142.*