

## Proposal for a simplified sustainability report for small and medium-sized enterprises

Proposta de relatório de sustentabilidade simplificado para empresas de pequeno e médio porte

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### ABSTRACT

The objective of this study was to present a simplified sustainability report for small and medium-sized enterprises (SMEs), as they play an important role in the economy, create new jobs, and their activities impact natural resources. The study was based on descriptive and qualitative research with SMEs in Curitiba and its surrounding metropolitan region, located in the State of Paraná, southern Brazil. Data were collected using a questionnaire divided into three parts that included general information about the companies, motivations, and challenges in the adoption of sustainable practices by SMEs, and sustainability indicators selected from the Global Reporting Initiative (GRI) Standards and the Socio-Environmental Responsibility Questionnaire (QRSa) from financial institutions. The results indicated contradictions among the motivations, challenges, and communication of sustainable practices adopted by SMEs to their stakeholders. Finally, the results suggested that a simplified report may assist SMEs to adopt and, more importantly, communicate sustainable business practices to their stakeholders.

**Keywords:** small and medium-sized enterprises; sustainable practices; sustainability indicators; motivations and challenges.

### RESUMO

O objetivo do estudo foi propor um relatório de sustentabilidade simplificado destinado às empresas de pequeno e médio porte (PME), as quais têm papéis relevantes na economia, na geração de empregos e cujas atividades também exercem pressão sobre os recursos naturais. O estudo foi baseado em uma pesquisa descritiva e qualitativa, com PME localizadas no sul do Brasil, no Estado do Paraná, em Curitiba e cidades da sua Região Metropolitana, com base em um questionário dividido em três partes que compilou a coleta de informações gerais das empresas, as motivações e os desafios para a adoção de práticas sustentáveis pelas PME e, por fim, os indicadores de sustentabilidade selecionados conforme a análise da estrutura do relatório de sustentabilidade do *Global Reporting Initiative (GRI) Standards* e de Questionários de Responsabilidade Socioambientais (QRSa) de instituições financeiras. Os resultados apontaram oposições quanto às motivações, aos desafios e à comunicação das práticas sustentáveis adotadas pelas PME perante os seus *stakeholders*. Por fim, verificou-se que um relatório simplificado pode auxiliar as PME na adoção e, principalmente, na divulgação de práticas sustentáveis dos seus negócios e para os seus *stakeholders*.

**Palavras-chave:** pequenas e médias empresas; práticas sustentáveis; indicadores de sustentabilidade; motivações e desafios.

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**Introduction**

The present study aims to contribute to discussions on the motivations and challenges encountered by small and medium-sized enterprises (SMEs) to adopt and communicate sustainable practices and to propose a simplified sustainability report. The focus of the analysis is the SMEs in Curitiba and its metropolitan region, located in the State of Paraná, southern Brazil. Herein, the concept of sustainable practices considers the voluntary activities that companies implement to integrate their economic, environmental, and social interests with those of their stakeholders to achieve mutual benefits. This perspective is aligned with the “Green Paper — Promoting a European Framework for Corporate Social Responsibility” (Commission of the European Communities, 2001; 2007).

The contribution of such analysis is related to the relevance of SMEs in the economy both in developed and developing countries; in Portugal, SMEs represent 99.9% of all companies (Gomes et al., 2022), while in Brazil they account for approximately 98% of established companies, 62% of the jobs generated, and 27% of the Gross Domestic Product (GDP) (Ministério da Economia, 2022). According to Morsing and Perrini (2009), the “smallness” of individual SMEs is not proportional to their collective “greatness”, and the “large scale of small companies” lies in their contribution to social and economic cohesion.

Added to this is the limited number of studies on sustainable practices disclosure through sustainability reports by SMEs in Global South countries. This was observed through an exploratory bibliometric survey in Portuguese, English, and Spanish, based on a set of pre-defined keywords related to the proposed theme over a period of time. The scientific databases consulted were the Scientific Electronic Library Online (SCIELO), with no period defined, and the Web of Science, from 2017 to 2021. The queries were carried out on July 22, 2021, and, after refining search results to avoid duplication of articles, resulted in a total of 54 studies.

Similarly, the systematic review of the academic literature conducted by Johnson and Schaltegger (2016) confirms the results of the exploratory survey. The authors identified a total of 145 studies citing sustainability management tools for SMEs, of which, 106 were concentrated in Europe, 14 in Australia and New Zealand, 13 in Asia, and 12 in North

America, South America, and Africa (approximately 8% of the total). Therefore, there is significant scope for further analysis of sustainability in SMEs, especially in countries located in the Global South.

The relevance of this discussion is also related to the potential benefits for SMEs in adopting and communicating such practices to their stakeholders, including the focus on job creation, benefits for the local community, and the sustainable use of natural resources, as noted by Corazza (2018). Smiechowski and Lament (2017) point to the benefit of public acceptance of the balance between economic benefits of businesses and environmental issues, while Campos-Rasera et al. (2021) highlight the intangible benefits, such as reputation, legitimacy, and confidence that influence the competitiveness of companies.

It is also necessary to mention that due to their diverse realities, SMEs face significant challenges in attempting to simplify procedures and tools that have been successfully adopted by large corporations (Steinhöfel et al., 2019). Along with financial and human resource limitations, SMEs must commit more time and knowledge to conduct such management practices (Longo et al., 2005). They must also be convinced that adopting such practices will not increase pressure on their cash flow and time required for business management, that is, it will not increase operational and financial risks that may impact their profits (Jenkins, 2006).

The quest for a more sustainable society (Singh et al., 2019) results in increasing pressure from stakeholders for greater transparency of an entity’s sustainable practices, including SMEs. Part of this pressure comes from investors who now recognize that climate risk is an investment risk (Fink, 2020). According to Christ (2021), the growing interest in Environmental, Social, and Governance (ESG) frameworks led to a rapid transformation in the investment industry, where global investors are seeking for sustainable asset portfolios and migrating their vast resources to these organizations whose principles are based on sustainable practices. This transition can be seen in Table 1, which demonstrates the evolution of sustainable investment from 2014 to 2018.

Thus, this study addresses the following problem: how can a simplified sustainability report assist SMEs to adopt sustainable practices?

**Table 1 – Growth of sustainable investment assets by region in local currency (2014, 2016, and 2018)\*.**

	2014	2016	2018	Growth Per Period	
				Growth (%) 2014–2018	Growth (%) 2016–2018
Europe (€)	9.885	11.045	12.306	12	11
United States (\$)	6.572	8.723	11.995	33	38
Canada (CAD)	1.011	1.505	2.132	49	42
Australia/New Zealand (AUD)	203	707	1.033	248	56
Japan (¥)	840	57.056	231.952	6692	307

\*Asset values are expressed in billions. All 2018 assets in this report are from 12/31/2017, except Japan, which are from 03/31/2018. Source: Global Sustainable Investment Alliance (2018).

The proposal for a simplified sustainability report or the selection of sustainability indicators for SMEs has been addressed by researchers such as: Borga et al. (2009), whose study was based on seven Italian furniture companies; Arena and Azzone (2012), who developed questions and indicators from suggestions given by third party specialists; Cohen (2013), who used the GRI structure as reference indicators in three practical cases with SMEs in England, Australia, and South Africa; and Calabrese et al. (2016), who discussed the subjectivity of SME managers.

The main differences among the simplified reports of the researchers cited above and the report proposed in the present study are its practical approach and regional focus. This study is based on selected GRI Standards indicators that are already employed by Brazilian SMEs in different sectors, and thus, reflects the sustainability culture in the country's context. Furthermore, the present study is informed by questions from the QRSA that are frequently indicated in socio-environmental responsibility analyses by Brazilian financial institutions. This set of structures aims to strike a balance between the sustainable practices in the country's market and the reality of SMEs.

## Literature review

The decision to adopt and disclose sustainable practices undergoes a process of maturity, analysis, and decision-making by an entity's management. Besides, the implementation of such practices can contribute to reduce the impact that an entity's activities may have on the environment (Silva and Martins, 2017). Perhaps the main consideration to achieve the best outcome is the integration of sustainable practices with the general business strategy of the SMEs, while also focusing on the sustainable growth of activities in the long term (Das and Rangarajan, 2020).

This process can be accelerated when entities are required to create and maintain a transparent and open dialog with their stakeholders through Corporate Social Responsibility (CSR) as a means to support ethically and socially responsible lines of action (Stawicka, 2021). That is, companies can adapt to sustainable production modes that prioritize socio-environmental responsibility while still generating profit (Gonçalves and Dzedzic, 2012). There is also the need to define financial and non-financial monitoring indicators that increasingly incorporate ESG criteria, which are indicated by Christ (2021, p. 10) as a "set of factors and criteria related to environmental, social and governance issues to be incorporated in company assessments, going beyond the traditional economic-financial metrics."

For Cohen (2013), sustainability reports may be ineffective if they are not based on real actions taken by the company to improve its impact on sustainability. However, they can offer several key benefits including: building trust through transparency; appreciation by its customers reflected in increased sales; increased employee engagement; improved access to financing; and better relationships with local communities.

The present study proposes a simplified report based on GRI Standards (2016), which is the most widely used disclosure framework worldwide according to a survey by KPMG (2020). The GRI Standards framework incorporates QRSA indicators due to the two different realities that financial institutions have been experiencing, as pointed out by McKinsey (2021): meeting capital needs to promote the transition from pollutant emitting industries to decarbonization activities and maintaining funding for activities in polluting energy matrices while this transition is underway.

Concerns about these scenarios are highlighted in the "Green Swan" report of the Bank for International Settlements (BIS), which states that events caused by climate change could force the world's central banks to intervene as "climate rescuers" and acquire large, devalued asset pools to keep the financial system up and running (Bolton et al., 2020).

Along with financial information, sustainability disclosures become essential for regulators, companies, investors, and the community at large to assess and understand an organization's contributions to sustainable development. In addition, they aim to provide greater social awareness, especially for consumers, as the purchase of a product reflects the purchase of the entire production process. This underscores the importance of producing such disclosures according to sustainability standards (Stawicka, 2021).

As GRI (2020) mentions "the practice of disseminating sustainability information inspires responsibility, helps identify and manage risks, and enables organizations to seize new opportunities." They can also improve the ability of organizations to map and manage risks related to sustainability, serving as a cost-saving tool by helping the organization use natural resources more efficiently, improving the efficiency of its processes (INTOSAI, 2013).

The preference for using GRI Standards over other frameworks is due to GRI's approach, which considers multiple stakeholders (IFC, 2018). As such, this approach offers SMEs access to market benchmark sustainability indicators so that they can be evaluated and implemented in their sustainability agendas.

Further, due to the global representativeness of the GRI Standards, the GRI and the UN worked to integrate the GRI Standards with the Sustainable Development Goals (SDGs) and issued the document "Linking the SDGs and the GRI Standards" (GRI and ONU, 2020) connecting the 17 SDGs with their respective GRI Standards. Thus, SMEs can improve efficiency by adopting the GRI Standards while meeting the SDGs.

When looking at the adoption of sustainable practices by SMEs in particular, it is also necessary to consider the characteristics of these entities, such as: operational and structural limitations, including scarcity of financial resources, small number of employees, lack of time for strategic planning, and simplified internal decision-making processes; lack of actionable tools, especially those oriented towards the adoption of sustainable practices (Bos-Brouwers, 2010; Santos and Silva, 2010; Corazza, 2018); and external factors, such as the lack of government incentives (Petrini et al., 2017).

SMEs do not suffer pressure from their stakeholders or avoid external scrutiny regarding their sustainable performance (Borga et al., 2009; Williams and Schaefer, 2013; Singh and Mittal, 2019). At the same time, they see the adoption of sustainable practices as risks that can impact their profits and therefore do not include them in their strategies (Steinhöfel et al., 2019). However, due to their own obligations, large companies can exert pressure on SMEs to adopt sustainable practices as a requirement for participating in their value chains (Figueiredo, 2021).

As suggested by Baumgartner (2009), one fact to consider is that if sustainability is not part of the mindset of entrepreneurs, owners, administrators, and/or managers in SMEs, it will not have an effective impact on the business and will be more likely to fail.

Another variable to consider is the management of the SMEs' stakeholders, which can help to reduce risk and improve CSR (Jenkins, 2006; Stawicka, 2021). The support of stakeholders favors the construction and strengthening of their image, reputation, projected results, and monitoring of resource use, improves the quality of the environment, working conditions, and standards of fairness in practice, and mitigates the risks to which organizations are exposed (Soares, 2015). It can also contribute to build corporate image, gain access to the value chain of large companies, and create opportunities in new markets (Singh and Mittal, 2019).

Freeman et al. (2018) point out that a stakeholder management strategy can create value, support innovation, incorporate multiple groups and individuals, and better address ethical issues. These activities are important for survival, long-term success, and contributions to society, once a short-term outlook is incompatible with building stakeholder engagement (Eccles et al., 2014).

The survival of an enterprise is correlated with the social acceptance of its product and the operational methods used in its manufacture (Machado and Ott, 2015). The legitimacy of companies is therefore dependent on the legitimacy conferred on them by society (Deegan, 2002, p. 292; Pimentel et al., 2004), as a means to adhere to the explicit or implicit "social contract" (Patten, 1992).

The functioning of an organization can be threatened if the society perceives that the social contract was breached (Eugénio, 2010), and as such can revoke it. This can also occur when society's expectations change, that is, what was once acceptable is no longer considered so (Deegan, 2002), or due to events that had a negative impact on the organization's reputation or legitimacy (Patten, 1992).

How, or whether, management reacts to perceived legitimacy gaps is based on the perceptions of how society views the organization (Deegan, 2002). This perspective highlights the strategic importance (and power) of disclosures made within annual reports and other public documents and are associated with possible threats to that legitimacy (Correa et al., 2015). These annual reports can act as mechanisms by which organizations influence how they are perceived by society (Suchman, 1995).

The discussion regarding these sustainable practice reports must also consider whether or not they are mandatory (IOSCO, 2021). The voluntariness of sustainability reports can be contrasted with the desire to make them mandatory. This refers to the perspective that power is a relation of forces (Foucault, 2014), something to be obeyed, as well as an alternative to disobedience, and as such, a legal imposition, compulsory, regardless of one's will. Foucault (2014, p. 99) states that "power is not given, it is not exchanged or taken back, but it is exercised, it only exists in action."

For these reasons, the proposal of this study may assist SMEs, that seek to meet the stakeholders' demands and pressures, to adopt sustainable practices adapted to their specific realities. Thus, the objectives of the present study were: to identify the motivations and challenges faced by entrepreneurs, owners, administrators, and/or managers of SMEs that may affect the adoption of sustainable practices in their businesses; to investigate whether SMEs are concerned about the pressure from their stakeholders and their legitimacy, considering practices (sustainable or not) currently employed, and whether they communicate these practices; and finally, to validate the proposal for the use of a simplified sustainability report by SMEs to ensure the continuity of their operation and preserve their legitimacy image.

## Methodological procedures

The study was based on qualitative research, and identified and interpreted SMEs' phenomena, interactions, and perspectives that represent actual incidences of sustainability reporting disclosure rather than researchers' values, assumptions, or meanings (Yin, 2016).

From the point of view of the objectives to be achieved (Gil, 2009), this study was based on descriptive research and considered the phenomena of Brazilian SMEs that adopted GRI Standards, obtaining data from their sustainability reports and using a required standardized data collection technique (Prodanov and Freitas, 2013), such as the scientific research questionnaire. Data on Brazilian SMEs that used the GRI Standards in their respective sustainability reports were collected on January 7, 2021, from the Sustainability Disclosure Database (SDD) on the GRI website.

The questionnaire was constructed in the format of a simplified sustainability report itself and referred to the structure of the GRI Standards (2016) already used by the 16 Brazilian SMEs identified in the SDD and the QRSAs of Brazilian financial institutions. These documents were compared and submitted to a content analysis to verify similarities, differences, and gaps among them. Afterward, they were compiled and complemented, resulting in 23 indicators from the GRI Standards and 95 questions from the QRSAs to form the simplified questionnaire report.

The use of sustainability reports was based on the consensus of other research where such documents were found reliable for disclosing sustainability practices in organizations (Gill et al., 2008; Dissanayake et al., 2016; Singh et al., 2019). The analyses of QRSAs, on the other hand, proved relevant due to the impact of institutions on the financing of entities that may increase climate risk.

In this research, SMEs located in Curitiba and its metropolitan region, in the State of Paraná, Brazil, were considered as the unit of analysis.

The content analysis technique (Bardin, 2016) was used to assess the comments collected from entrepreneurs, owners, administrators, and/or managers of the responding SMEs, with the semantic analytical categories (at the thematic level) referring to the recording and context units, as shown in Table 2.

For the enumeration rules, frequency analysis was chosen, with the same weight as those indicated by the respondents. The categories were used as a reference for the interpretation of the respondents' comments included in the respective research questionnaires and analyzed with the support of the Atlas.ti software.

**Research stages**

The research design and steps are shown in Figure 1.

*Theoretical foundation*

The research was reviewed through reading, identification, and construction of the previously mentioned theoretical references.

*Definition of the research scope*

SMEs are located in the Global South, Brazil, state of Paraná, city of Curitiba and cities within its metropolitan region. The criterion for the classification of SMEs was based on gross revenue (BNDES,

2021): “Annual gross revenue greater than R\$ 360 thousand up to R\$ 300 million”.

*Data collection*

Data were obtained from the GRI SDD, as a primary source of data, and public QRSAs of Brazilian financial institutions available on the internet. A total of 16 Brazilian SMEs were found that operate in the industrial and service sectors.

*Questionnaire development*

The questionnaire was divided into three parts:

- 1) general information about the respondent and the company;
- 2) motivations and challenges faced by SMEs to adopt sustainable practices based on previous research, with open, closed, multiple-choice questions, using the Likert Scale to ascertain the average “degree of importance” of the answers on a scale of 1 to 5 (1 - *Not at all important*; 2 - *Not very important*; 3 - *Relatively important*; 4 - *Important*; and 5 - *Very important*);
- 3) sustainability indicators compiled and selected based on GRI Standards and QRSAs of Brazilian financial institutions that served both for the research and the simplified sustainability report template presented to the participants, with the main objective to verify the feasibility of deploying the sustainable practices cited in the simplified sustainability reports.

**Table 2 – Context units for categorization and coding.**

Recording units/Context units	Category	Coding
Words and/or terms mentioned in the comments of SME entrepreneurs, owners, administrators, and/or managers regarding incorporating sustainable practices into their operational activities and business strategies. The “motivations” used as a reference for coding are mentioned in the Research Questionnaire, question 2 (Appendix D).	1. Motivations	1.1. Mission, values, and vision; 1.2. Legal regulations/government incentives; 1.3. Competitive advantage/market growth; 1.4. Stakeholder pressure; 1.5. Business opportunities; 1.6. Profit increase/cost reduction; 1.7. Quality of life; 1.8. Reputation; 1.9. Access to large enterprises; 1.10. Differentiated lines of credit; 1.11. Reduction of environmental damage; 1.12. Differential products and services; 1.13. Internal policies; 1.14. Environmental marketing; 1.15. Legitimacy.
Words and/or terms mentioned in the comments of SME entrepreneurs, owners, administrators, and/or managers in relation to discouraging the adoption of practices outlined in the Research Questionnaire, mentioned in question 3 (Appendix D).	2. Challenges	2.1. Mission, values, and vision; 2.2. Lack of knowledge; 2.3. Scarcity of financial resources; 2.4. Lack of time to plan strategies; 2.5. Simplified decision-making; 2.6. Legal regulations/government incentives; 2.7. Lack of personnel; 2.8. Increased spending; 2.9. Few benefits in initiatives.
Words and/or terms that refer to the communication of sustainable practices for stakeholders. “Communication” was addressed throughout the sustainability indicators in Part 3 of the Research Questionnaire (Appendix D).	3. Communication	3.1. Sustainability reports; 3.2. Communications to interested parties.



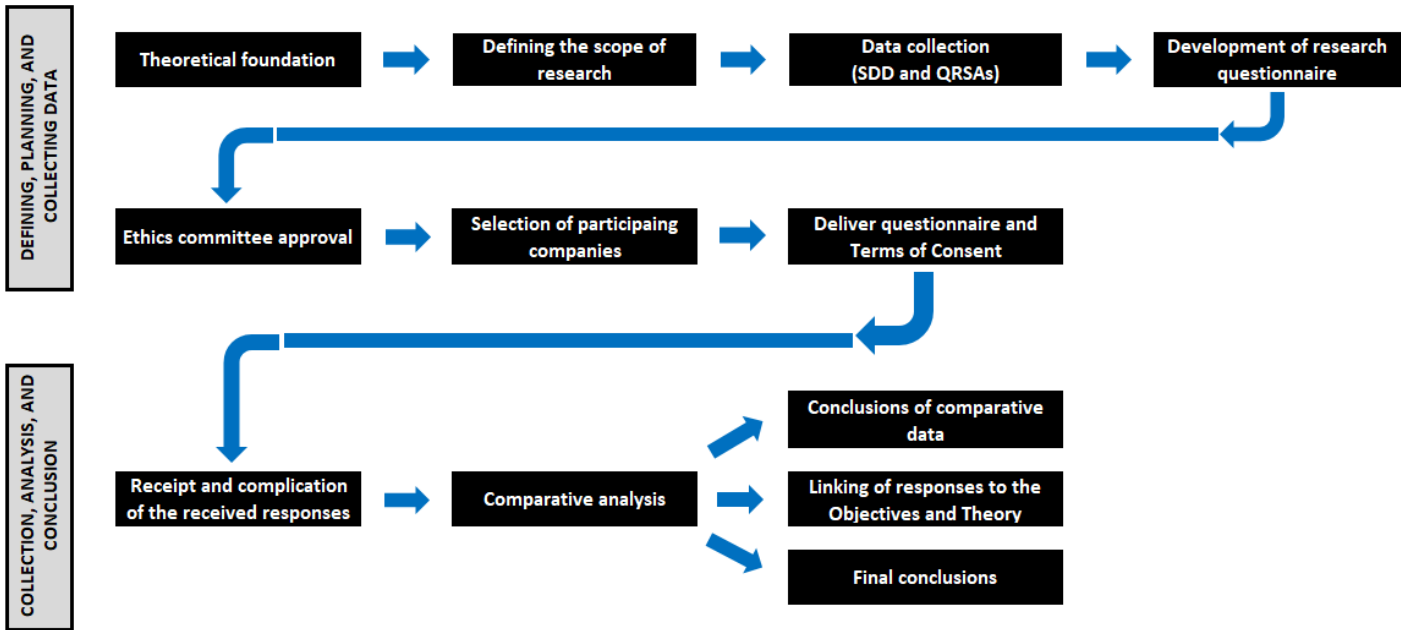


Figure 1 – Research Design: Stages.

No specific sector was defined for the application of the questionnaire. This strategy was adopted for two reasons:

- Of the 16 identified Brazilian SMEs that operate in the industrial and service sectors, none of the indicators analyzed were restricted to only one operating sector, all companies presented a variety of indicators used in their sustainability reports even from different sectors;
- The definition of a sector would limit the sample of participating companies and, consequently, the number of responses.

#### Authorization from Human Research Ethics Committee

The research was approved by the Human Research Ethics Committee of the IPO Hospital in Curitiba, PR, through a substantiated evaluation, issued on 08/25/2021, protocol no. 4.931.480.

#### Selection of companies participating in the survey, distribution of questionnaires, and Terms of Consent from respondents

It was not defined a specific sector for the application of the survey questionnaire, as explained above. This decision is unique to this study, since it is known that sustainability management in SMEs will depend on the characteristics of each company and its sector.

Data collection was conducted from SMEs located in Curitiba and cities in its metropolitan region. According to the Coordination of the Metropolitan Region of Curitiba (COMEC, 2021), the Curitiba Metropolitan Region consists of 29 municipalities in total. The cities covered by the Central Urban Core (NUC) are Almirante Tamandaré, Araucária, Campina Grande do Sul, Campo Largo, Campo Magro, Colombo, Curitiba, Fazenda Rio Grande,

Itaperuçú, Pinhais, Piraquara, Quatro Barras, Rio Branco do Sul, and São José dos Pinhais, and from the Vale do Ribeira are Adrianópolis, Bocaiuva do Sul, Cerro Azul, Doutor Ulysses, and Tunas do Paraná.

The total estimated population of Curitiba and its metropolitan region was 3,731,769 inhabitants (32% of the total population of the State of Paraná) and occupies the 9th position among the 28 most populous metropolitan regions evaluated by the Brazilian Institute of Geography and Statistics (IBGE, 2021), after São Paulo, Rio de Janeiro, Belo Horizonte, Federal District, Porto Alegre, Fortaleza, Recife, and Salvador. In 2015, the region's GDP was R\$ 148.2 billion (Prefeitura de Curitiba, 2021).

To identify the companies, the following resources were used:

- Google Maps to map the location of the companies in the NUC. Municipalities in the Vale do Ribeira were not included in the scope of this research as their economies depend on family agriculture and natural resource extraction;
- consultation of the municipal commercial association websites;
- random selection. With this, a total of 117 companies were found to participate in the survey.

#### Receipt and consolidation of responses

Of the 117 eligible companies contacted by telephone and/or email, seven replied to the survey questionnaire (a response rate of 6%). Electronic spreadsheets were used to calculate and generate statistical data and graphs, and the Atlas.ti software was used to analyze the contents of the questionnaire responses. Therefore, 110 companies did not participate in the survey; 63 provided no response and 47 contributed with

feedback identifying some of the potential reasons why they did not participate in the survey.

*Comparative data analysis and final conclusions*

The collected data were compiled from the research questionnaire and coded (analytical categories) based on the classifications identified in the respective responses, through content analysis. The study was finalized with the formulation of conclusions.

**Results and discussion**

The results are organized in three parts:

- 1) observations collected from non-respondent companies;
- 2) comparative analysis among the responses received from the participating SMEs;
- 3) comparative analysis of sustainable practices with feasibility of implementation as indicated by responding SMEs.

**Observations collected from non-respondent companies**

Of the 117 identified companies, only seven questionnaires were obtained. Of the 110 non-respondent companies it was possible to ascertain some potential reasons why 47 did not participate in the research through their feedback: 26 companies provided the justification that there was an “accumulation of functions”; 16 stated that they “did not have a Specialized Service in Safety Engineering and Occupational Health (SESMT) or their SESMT is outsourced”; four companies stated that the “first contact was restricted to e-mail”; and one company stated that the “person responsible was on leave due to illness”.

These results underscore the challenges faced by SMEs, such as the lack of sufficient financial and human resources to carry out their operations and the need to prioritize corporate functions. Back (2015) and Girella et al. (2019) also identified these issues.

**Comparative analysis of the responses received from participating SMEs.**

The responses of the seven companies provide an overview of the motivations and/or challenges that SMEs face in relation to sustainable

practices and the communication of these practices with their stakeholders. The information can be organized into two types.

*Type 1: General information about the respondent and the company*

This information enables us to understand the personal and administrative characteristics of the respondents. It also helps to clarify and substantiate the distinct characteristics of SMEs, especially when compared to large corporations, as observed in the studies of Studer et al. (2006), Williams and Schaefer (2013), and Back (2015). The characteristics of the respondents are presented in Table 3.

We can observe that the respondents held positions/functions at middle and top management levels, which are generally involved in and/or responsible for developing business strategy, in addition to implementing these strategies in their day-to-day activities with their respective work teams. All the professionals who responded to the questionnaire had undergraduate degrees, with two professionals holding postgraduate degrees (companies 2 and 3), one with a master’s degree (company 1); and another one with doctorate (company 4). These results indicate that respondents are qualified professionals with technical knowledge who occupy prominent positions in addressing sustainable practices in their respective companies.

From the general information collected, the following stood out: six SME respondents classified themselves as medium-sized companies and one as a small company; four companies were operating for over 30 years; all companies were nationally controlled and family-owned, with three companies in their second generation of ownership; two companies operated in the service sector, while the others were industrial. Only one company prepared and disclosed its sustainability reports and two reported that they stopped preparing and disclosing these reports due to changes in management and lack of collection of this information by the shareholders. Finally, just one company had some kind of environmental certification.

*Type 2: Motivations and challenges for the adoption of sustainable practices by SMEs*

Twenty-two motivations were indicated by SMEs to adopt sustainable practices and the results were ascertained as shown in Table 4.

**Table 3 – Characteristics of respondents.**

Company Code	Position/function	Level of education	Gender	Age (years)	Ethnicity
Company 1	Manager	Undergraduate/Master	Male	43	White
Company 2	Manager	Undergraduate/Post-graduate	Female	56	White
Company 3	Coordinator	Undergraduate/Post-graduate	Female	39	White
Company 4	Manager	PhD	Female	37	Asian
Company 5	Director	Undergraduate	Male	51	White
Company 6	Director	Undergraduate	Male	29	White
Company 7	CEO	Undergraduate	Female	59	White

**Table 4 – Results of the questions regarding “motivation”.**

Motivation	Degree of importance (score)
iii. Legal regulations (e.g., licensing, enforcement, and environmental fines)	5
x. Improve quality of life	5
xii. Company reputation	5
xvi. Reduction of the environmental impact of its activities	5
i. Achieve organizational mission in its social contract/statute	4
ii. Achieve the characteristics and values of the founder, entrepreneur, or owner	4
iv. Competitive impact	4
v. Community pressure	4
vii. Customer pressure	4
viii. Business opportunities	4
xi. Cost reduction	4
xiii. Market growth	4
xv. Obtaining differentiated lines of credit	4
xvii. Differentiation of products and/or services	4
xviii. Internal policy improvement	4
xx. Environmental marketing	4
xxii. Company legitimization	4
vi. Pressure from suppliers	3
ix. Increased profit	3
xiv. Access to large businesses	3
xix. Government incentives	3
xxi. Competitive advantage	3

Four of these statements were classified by the respondents as “5 - Very important”. On the other hand, five statements were classified as “3 - Relatively important”. The remaining 13 motivations were classified as “4 - Important”, indicating the existence of a certain degree of motivation and interest by the respondents.

Additionally, ten challenges were listed, with the degree of importance as demonstrated in Table 5.

Only one question was answered as “4 - Important”, the other challenges were answered with the level of “3 - Relatively important”. Thus, from the respondents’ perspective, SMEs also have their difficulties and complexities.

We sought to better understand the respondents’ position in relation to their “agreement” or “disagreement” with eight statements, according to the questions and results presented in Table 6.

The study also had 12 questions about sustainability practices. The responses were based on the Likert Scale mentioned above, as observed in Table 7.

**Table 5 – Results of questions regarding “challenges”.**

Challenges	Degree of importance (score)
ix. Increased spending (costs and expenses)	4
i. Vision of the founder, entrepreneur, or owner of the company	3
ii. Lack of knowledge about the impacts generated	3
iii. Scarcity of financial resources	3
iv. Lack of time for strategies planning	3
v. Simplified decision-making processes	3
vi. Legal regulations	3
vii. Lack of government incentives	3
viii. Lack of personnel	3
x. Little benefits in implementing these initiatives	3

Two subjects were cited as “5 - Very important”. One sentence was classified as “1 - Not important: Large companies are the focus of attention in the sustainability debate. Therefore, my company should not get involved in this topic”. And the others ranged between “3 - Relatively important” and “4 - Important”.

**Comparative analysis of sustainable practices with feasibility of implementation as indicated by SME respondents**

The selected sustainable practice indicators were compiled based on the GRI Standards and QRSAs of Brazilian financial institutions. These selected indicators were presented to the participating SMEs in the third part of the questionnaire. The frequencies and percentages of responses received were calculated for each of the respective indicator (Table 8), presented by SMEs’ sector — Industry (Ind.) and Service (Serv.).

The GRI Standards indicators with the highest implementation feasibility (answered as “Yes”) were: “GRI 102 - General disclosures” at 38%; and “GRI 305 - Emissions” at 14%. For the QRSAs, the analysis considered simple frequencies of the companies answering the selected questions. There were more answers of “Yes” by the SMEs in the industrial sector than in the service.

To corroborate the previous survey, assertive questioning was included regarding the “probability of respondents using, reviewing, or improving their sustainable practices based on the indicators in Part 3 of the survey questionnaire”. This was applied to validate the proposal of using a simplified sustainability report. The answers, obtained through the Likert Scale, were as follows: one company responded “5 - Very High”; four companies responded “4 - High”; two companies responded “3 - Average”. These results corroborate the level of concern among surveyed SMEs on the topic.

To complete the survey questionnaire, five open questions were included in which respondents’ comments were requested.



**Table 6 – Questions with “agree” or “disagree” answer.**

Questions	Frequency of responses: “I agree.”	Frequency of responses: “I disagree.”
4. Incorporating sustainability initiatives will increase my company’s expenses.	3	4
5. The lack of resources hinders investment in sustainability.	5	2
6. Building relationships with other companies (SMEs and/or large businesses) can represent a way to overcome barriers, such as lack of resources.	7	0
7. Many sustainability initiatives serve only to comply with environmental legislation, but do not provide any significant <b>financial benefits</b> .	4	3
8. Many sustainability initiatives serve only to comply with environmental legislation, although they do not provide any significant <b>environmental benefits</b> .	1	6
9. If sustainability is not part of the values held by the entrepreneur, owner, or upper-management professionals of my company, such initiatives will likely fail.	6	1
10. Sustainable approaches adopted by large companies can be applied directly to my company.	4	3
11. Sustainability reports would be a “proof of ethical behavior” in my company’s business and strategies.	6	1

**Table 7 – Questions with degree of importance responses.**

Questions	Degree of importance (score)
16. Promoting employee training programs increases the chances of my company implementing sustainability initiatives.	5
21. Incorporating sustainable and responsible initiatives can increase the possibility of my company acting as a supplier to large organizations, thus improving the relationship across the entire supply chain.	5
12. A demanding legislation would bring good results for socio-environmental management, but it would be more effective if my company implemented it voluntarily.	4
14. The scarcity of financial resources and lack of knowledge about the impacts generated by the activities of companies can be overcome through collaboration between companies.	4
18. Disseminating economic, social, and environmental information, through sustainability reports, aims to inform stakeholders about my company’s performance.	4
19. My company depends on the legitimacy (license to operate obtained by the compatibility of the products and/or services with the implicit social contract between the company and society) for its survival.	4
20. Sustainability reports help my company demonstrate legitimacy and reputation to society.	4
22. My company’s levels of waste generation and resource consumption (such as energy and water) have a significant impact on the environment and cause environmental damage.	4
23. The cost and risk levels of my company’s activities have a significant impact on the environment and cause environmental damage.	4
13. My company does not see competitive advantage or benefits in adopting sustainability initiatives.	3
17. Stakeholder pressure regarding sustainability issues on my company is a motivator for the adoption of sustainable practices.	3
15. Large companies are the focus of attention in the sustainability debate. Therefore, my company should not get involved in this topic.	1

Content analysis was applied using Atlas.ti and Table 9 shows the frequencies of citations in relation to the coding used.

The respondents’ comments and their answers to the research questionnaire demonstrate areas of improvement that can be leveraged to align the understanding of sustainable practices as strategies for their companies, obtain greater knowledge of who their stakeholders are and what are the advantages in the markets in which they operate, with results for their business.

Table 10 presents a summary of the analyses conducted in the research objectives and their intersection with the answers of the participating SMEs, as well as other studies that supported the discussion.

The topics mentioned in Table 10 were thus analyzed and used as the basis to obtain the results as follows:

- Legal regulations. Without entering into the merits of the level of regulation requirements enacted in different countries, the results indicate that the motivation regarding legal regulations for the adoption of sustainable practices by the SMEs participating in this research is in line with the results found by Back (2015), thus reinforcing the possible cultural differences between Brazilian SMEs and those of other countries. However, regardless of different cultures, the consensus is that SMEs must comply with legal requirements in the context in which they operate to continue regular operations;

**Table 8 – Summary of the percentage representativity of the selected GRI Standards and QRSA indicators in relation to the responses received.**

Weighted averages	ANSWERS (%)						Total representativity of the indicators (%)	Representativity of YES answers (%)
	YES		NO		N/A			
	Ind.	Serv.	Ind.	Serv.	Ind.	Serv.		
<b>GRI standards Indicators</b>								
<b>Selected</b>								
GRI 102: General disclosures	15	7	2	3	2	0	29	38
GRI 103: Management approach	5	1	1	2	0	0	9	10
GRI 205: Combat corruption	3	1	1	1	0	0	6	7
GRI 302: Energy	2	1	1	1	0	0	5	5
GRI 305: Emissions	7	1	3	8	8	0	27	14
GRI 306: Waste	1	0	0	1	0	0	2	2
GRI 307: Environmental compliance	2	0	1	1	1	0	5	3
GRI 403: Health and safety	5	2	1	1	0	0	9	12
GRI 413: Local communities	4	1	1	2	0	0	8	9
<b>Answer representativity</b>	<b>44</b>	<b>14</b>	<b>11</b>	<b>20</b>	<b>11</b>	<b>0</b>	<b>100</b>	<b>100</b>
<b>QRSA questions</b>	<b>30</b>	<b>11</b>	<b>26</b>	<b>20</b>	<b>10</b>	<b>3</b>		

GRI: Global Reporting Initiative; QRSA: Socio-Environmental Responsibility Questionnaire.

**Table 9 – Frequency of coded citations and correlation with responses of SMEs.**

Category	Coding	Companies							Total Frequency
		1	2	3	4	5	6	7	
Communication	Sustainability reports	0	1	0	0	0	0	2	3
Challenge	Scarcity of financial resources	0	0	1	0	0	0	0	1
Challenge	Little benefits of initiatives	0	0	0	0	3	0	0	3
Motivation	Differentiated lines of credit	0	0	1	0	0	0	0	1
Motivation	Profit increase/cost reduction	1	0	0	0	0	0	0	1
Motivation	Environmental marketing	1	0	0	0	0	0	1	2
Motivation	Business opportunities	0	0	0	0	1	0	0	1
Motivation	Internal policies	0	0	1	0	0	1	2	4
Motivation	Stakeholder pressure	1	0	0	0	0	0	0	1
Motivation	Competitive advantage/market growth	2	0	0	0	1	1	0	4
Total		5	1	3	0	5	2	5	21

- Improvement in people’s quality of life. By adopting sustainable practices, SMEs simultaneously cover social and other strategic benefits for their operations, supporting communities in the region, which is aligned with sustainable practices in other studies;
- Company reputation. Despite the differences among SMEs from various countries and compared to large companies, even the use of sustainability reports, corporate reputation management, and other motivations – such as maintaining legitimacy, and the improvement of company performance over time – are all valid factors that were identified by SME respondents for the maintenance and development of their business;
- Reduction in the environmental impact of their activities. According to the study by Johnson and Schaltegger (2016), managers and owners of SMEs are often unaware of the extent to which their companies impact society and the environment, even if the impact is minimal. Miller et al. (2011) estimated that, in Europe, industrial pollution generated by SMEs ranged between 60–70%. However, the results ascertained herein through the responses of

**Table 10 – Results of the research objectives.**

Specific objectives	Detailed topics	Referenced studies/ authors	Results obtained
1. Identify the motivations and challenges encountered by SME entrepreneurs, owners, administrators, and/or managers that can influence the adoption of sustainable practices in their business.	<b>Motivation:</b> Legal regulations	Battisti and Perry (2011)	SMEs respondents' answers converged with other reference studies.
	<b>Motivation:</b> Improving people's quality of life	Back (2015); Murillo and Lozano (2006)	
	<b>Motivation:</b> Company reputation	Borga et al. (2009); Singh and Mittal (2019); Williams and Schaefer (2013); Petrini et al. (2017); Longo et al. (2005)	
	<b>Motivation:</b> Reducing environmental impact of their activities	Johnson and Schaltegger (2016)	The answers obtained from the participating SMEs differed from the study used as reference. The participating SMEs indicated they know the impacts of their activities on the environment.
	<b>Challenge:</b> Increased spending (costs and expenses)	Studer et al. (2006); Corazza (2018)	The responses of the participating SMEs converged with the other reference studies.
2. Investigate whether SMEs are concerned about the pressure from stakeholders and their legitimacy, considering the practices (sustainable or not) currently used and the communication of these practices (CSR and ESG).	<b>Pressure:</b> Stakeholder pressure	Borga et al. (2009); Singh and Mittal (2019); Williams and Schaefer (2013); Petrini et al. (2017); Longo et al. (2005)	The responses of the participating SMEs converged with other reference studies.
	<b>Legitimacy:</b> SME legitimacy	Petrini et al. (2017)	
	<b>Communication:</b> Communication of practices (sustainable or not) by SMEs	Fassin (2008); Studer et al. (2006); Borga et al. (2009); Halkos and Nomikos (2020)	The responses of the participating SMEs converged in part with other reference studies. Exceptions were noted in the selected responses of companies 3 and 7.

the SMEs differ from the cited study, which may be due to the respondents' level of education;

- Increased spending (costs and expenses). Smiechowski and Lament's (2017) study found that businesses are driven primarily by economic benefits, while environmental actions typically increase costs. The present study appears to align with the perceptions of SMEs in other countries as this is indeed considered a challenge to the implementation of sustainable practices by SME entrepreneurs, owners, administrators, and/or managers in Curitiba and its metropolitan region;
- Stakeholder pressure. The findings of the authors previously cited are consistent with the answers obtained in this study, in which the pressure from suppliers, community, and customers — the stakeholders — were not classified by SMEs as fundamental to motivate them to implement sustainable practices in their business;
- SME legitimacy. The concern with legitimacy highlighted by the participating SMEs proves to be valid and consistent, due to the very high importance given to the topic and, above all, to the financial and reputational impacts that it can have on SMEs. Owing to their limited financial resources, SMEs are likely unable to implement significant actions in an attempt to reverse their impacts on society, which could ultimately lead to the closure of their operational activities;
- Communication of practices (sustainable or non-sustainable). SMEs may perceive communication as a barrier to the implemen-

tation of some of the stated content, but disclosure through sustainability reports enables the companies to communicate with their stakeholders, providing transparency about risks, opportunities, and performance, in addition to establishing and improving trust and reputation with such parties (INTOSAI, 2013). Furthermore, as Fassin (2008, p. 367) explained: "The obligation of reporting encourages reflection, helps to awaken the organization, makes the actions visible and to a certain extent measurable." SMEs must understand and manage their positive and negative impacts in a transparent, responsible, and objective way by disclosing them in their sustainability reports (GRI, 2021).

As a result of this study, a new opportunity appears in which the selected indicators can serve both as a simplified sustainability report and as a form of self-assessment by SMEs, to reflect on the adoption, review, or improvement of their sustainable practices.

### Conclusions

The challenges and characteristics of SMEs can be seen as opportunities. Because they are more flexible and closer to the consumer than large companies, SMEs may be better positioned to meet environmental challenges, as argued by Masurel (2007).

A key aspect for the inclusion of sustainability considerations by management is its integration with the long-term vision and strategies of the company by reflecting on and adapting its activities in con-

trolling costs, managing waste, reducing consumption of resources during production, and increasing productivity of resources and employees (Gessner, 2018).

There is still a demand among global investors to invest in sustainable assets within the framework of ESGs. Nevertheless, business is driven primarily by economic benefits, and “G” seems to be the link that connects “E” and “S”. According to a study conducted by Deloitte Consultancy and the Brazilian Institute of Investor Relations (2021), 74% of the indicators used by companies are related to Governance, followed by Environmental with 72%, and Social with 65%.

The participating SMEs in the present study also pointed out that mandatory regulation, and not voluntary sustainable practices, could

prove to be the strongest incentive to promote sustainable practices. This was also observed by Studer et al. (2006), filling the gap between SMEs’ own interests (indicated in their results) and society’s interest (Williams and Schaefer, 2013).

Therefore, the responses of the participating SMEs enabled us to validate the proposal of both simplified sustainability report and a self-assessment to adopt, review, or improve sustainable practices included in their operational activities.

The present study contributes to the scientific literature on the sustainable practices adopted by SMEs in the Global South and Brazil (Curitiba and its metropolitan region) and the potential benefits obtained by adopting and communicating such practices to their stakeholders.

### Contribution of authors:

PORCIÚNCULA JR., S. A.: Conceptualization; Data curation; Formal analysis; Acquisition; Investigation; Methodology; Project administration; Resources; Software; Validation; Visualization; Writing – original draft; Writing – review & editing. ANDREOLI, C. V.: Conceptualization; Supervision; Validation; Visualization; Writing – review & editing.

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