



www3.unicentro.br

Revista Capital Científico – Eletrônica (RCCe)

ISSN 2177-4153

Disponível em: [revistas.unicentro.br/index.php/capitalcientifico/index](http://revistas.unicentro.br/index.php/capitalcientifico/index)



www3.unicentro.br/ppgadm/

## Status of sustainability reports by brazilian higher education institutions

*O estágio dos relatórios de sustentabilidade das instituições de ensino superior brasileiras*

Rosamaria Cox Moura-Leite<sup>1</sup> e Matheus Wemerson Gomes Pereira<sup>2</sup>

<sup>1</sup> Universidade Federal de Mato Grosso do Sul, Brasil, Doutorado em Economia, e-mail: [rosamaria.leite@ufms.br](mailto:rosamaria.leite@ufms.br)

<sup>2</sup> Universidade Federal de Mato Grosso do Sul, Brasil, Doutorado em Economia, e-mail: [matheus.pereira@ufms.br](mailto:matheus.pereira@ufms.br)

Recebido em: 17/01/2020 - Revisado em: 15/05/2020 - Aprovado em: 25/06/2020 - Disponível em: 01/10/2020

### Abstract

The purpose of this research is to analyze the status of the publications of sustainability reports by Brazilian Higher Education Institutions (HEI). In order to meet this objective, a process of identification of institutions that are preparing sustainability reports was carried out, looking at the characteristics of these reports, what they communicate, as well as comparing the level of disclosure found in Brazilian HEIs with the results of studies developed in other countries. The findings show a small number of higher education institutions that publish sustainability reports, most of which are non-profit, privately-held institutions located in the southern region of Brazil. As for the content, it is worth highlighting the limited disclosure of indicators related to environmental dimension for Brazilians HEI's and diversity of distribution and disclosure of the dimensions found on studies done on other countries. The findings of the research can be useful for the elaboration of public policies that leverage the preparation of sustainability reports, besides offering information for managers of HEIs, which would allow them to plan or improve social-environmental practices within these institutions.

**Key-words:** Social-environmental disclosure; Universities; Sustainability; Brazil

### Resumo

O objetivo dessa pesquisa é analisar a situação das publicações de relatórios de sustentabilidade das Instituições de Ensino Superior (IES) brasileiras. Para atender a esse objetivo foram identificados quem está elaborando relatórios de sustentabilidade, quais são as características dos relatórios elaborados e o que está sendo comunicado nos mesmos, assim como se comparou o nível de evidenciação das IES brasileiras com os resultados de estudos desenvolvidos em outros países. Identificou-se um número reduzido de IES que

publicam relatórios de sustentabilidade, sendo que as instituições que publicam são em sua maioria privadas sem fins lucrativos, localizadas na região sul do Brasil, de tamanhos diversos. Em relação ao conteúdo ressalta-se a baixa divulgação de indicadores relacionados a questões do meio-ambiente, e a diferença na distribuição da evidência das dimensões entre os países analisados. Os resultados da pesquisa podem ser úteis para elaboração de políticas públicas que fomentem a elaboração de relatórios de sustentabilidade, além de oferecer informação para os gestores das instituições de ensino superior, que permite o planejamento ou aprimoramento das práticas socioambientais das suas instituições.

**Palavras-chave:** Divulgação Socioambiental; Universidades; Sustentabilidade; Brasil

---

## 1. Introduction

Higher Education Institutions (HEIs) have a crucial role when it comes to sustainable development and must themselves be role models of sustainability. Larrán-Jorge et al. (2015) state that in the last two decades, a growing number of HEIs have committed to incorporating and institutionalizing sustainability. Among the reasons for this increase, the authors highlight the increasing level of sustainability awareness, and the growing relevance of declarations, charters and partnerships that ratify the commitment of HEIs towards sustainable development. Added to this scenario is the increasingly professional management of HEIs (NTIM; SOOBAROYEN; BROAD, 2017).

One of the responses of HEIs to this context is the preparation of sustainability reports, which allow them to communicate with many stakeholders about their actions, values and indicators that impact sustainable development (CEULEMANS; MOLDEREZ; VAN LIEDEKERKE, 2015). The process of preparing a sustainability report ensures transparency of organizational actions and leads to organizational change, which reinforces the relevance of this organizational practice (ALBRECHT; BURADT; SCHALTEGGER, 2007).

In light of this scenario, research on sustainability reports has gained in importance and several systematic literature reviews have recently been published. It is worth highlighting a review made by Dienes, Sassen and Fischer (2016), which reveals the geographic distribution of researches carried out and points out that no study was observed in South America; and the review by Ceulemans, Molderez and Van Liedekerke (2015), which aims to systematically review the literature related to sustainability report only in HEIs. This study states that one of the emerging issues in the systematic literature review on sustainability reports in higher education is the analysis of the status of sustainability reports by HEIs in a given location, or for a given sample, due to the importance of identifying the level of institutionalization of sustainability reports.

This paper focuses to contribute to the development of research on sustainability reports in HEIs in a given location, as proposed by other studies. Our research is based in Brazil, which is the ninth largest economy in the world (WORLD ECONOMIC FORUM, 2017), and in 2016, had 2,402 higher education institutions with a total of 8,399,289 students enrolled (Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira [INEP], 2016). These numbers demonstrate the potential that HEIs have to influence society based on what they teach, do and research (GÓES; MAGRINI, 2016).

The literature research carried out for this paper reinforces the results of the two systematic literature reviews mentioned above, showing the lack of studies addressing sustainability reports of Brazilian HEIs. The research conducted in Brazilian territory addressed: teaching sustainability in undergraduate and postgraduate programs (e.g. FRANCO *et al.*, 2015; FRANCO *et al.*, 2017) environmental management practices (e.g., ENGELMAN *et al.*, 2019); proposals of structures of indicators for sustainability actions (e.g., GÓES; MAGRINI, 2016); and demonstration of sustainability practices (e.g. BRANDLI, *et al.*, 2019; SEIBERT, 2017). Brandli *et al.* (2015) concludes in his study, which addresses the barriers and context of the environmental aspect of sustainability in Brazilian HEIs, that it is necessary to develop research that helps identify the sustainability status in these institutions.

In light of this context, the purpose of this research is to analyze the status of the publications of sustainability reports in Brazilian HEIs. In order to meet this objective, HEIs that are preparing sustainability reports were identified, what are the characteristics of the reports prepared, what they communicate, besides comparing the level of disclosure found in Brazilian HEIs with the results of studies developed in other countries.

Information retrieved from the research is particularly relevant to three audiences: (i) managers of HEIs, since it allows them to access information that facilitates the decision-making process concerning the preparation of sustainability reports and the preparation of action plans for the promotion of sustainability in HEIs, since according to Ceulemans, Lozano and Alonso-Almeida (2015) the process of preparing sustainability report increases awareness of sustainability in the institution and improves communication with internal stakeholders; (ii) legislators, since the result of the research assists them to analyse the need for public policies that encourage the preparation of sustainability reports by HEIs (GAMAGE; SCIULLI, 2017); and (iii) the academic community due to lack of information (BRANDLI *et al.*, 2015).

The text of this paper follows the following structure: this introduction is followed by a brief literature review that addresses previous researches on sustainability reports, and portrays the Brazilian context that can influence the preparation of sustainability reports by the HEIs under study. Next, the methods used in this research are described. Then the results are presented and discussed and, finally, the conclusions of the study are presented.

## **2. Literature Review**

### **2.1 Previous researches on sustainability reports**

According to Alonso-Almeida *et al.* (2015), when compared to other sectors, organizations of the education sector publish few sustainability reports. Fonseca *et al.* (2011) warns of the low number of studies on this topic in the education sector. Some of these studies are presented below.

Lozano (2006) developed the Graphical Assessment of Sustainability in Universities (GASU), a tool based on the Global Report Initiative (GRI). In 2011 the same author looks into the sustainability reports status in HEI by applying the GASU tool in 12 universities and 11 countries, the result proved that the publication of sustainability reports in HEIs is still at

an early stage when compared to other types of organizations, both regarding the number of institutions that publish them and the quality of the publication (LOZANO, 2011).

Sustainability reports of Canadian universities were studied by Fonseca et al., (2011) and Sassen and Azizi (2018a). The first study adopted the GRI G3 model to measure economic, social and environmental indicators, and developed 20 indicators to measure the extent of the universities' specific activities. The sample of the study was composed of seven universities and the results show that even in a country like Canada, known for its actions to promote sustainability, the preparation of sustainability reports still has much to evolve. The second study, by Sassen and Azizi (2018a), sampled 20 universities, and adopted the GRI G4 combined with 39 indicators prepared by the authors, based on previous studies, to measure the extent specific for universities. The results confirmed the conclusions reached by Fonseca, et al., (2011) adding that sustainability reports of Canadian universities diverge considerably from each other, but generally have a clear focus on the environmental aspect and do not address the social aspect at all, which may be explained by the participation of many Canadian universities in the STARS program - Sustainability Tracking, Assessment, and Rating System, which is a self-report for colleges and universities to measure their sustainability performance. Most of the participating institutions are American, followed by Canadians (Association for the Advancement of Sustainability in Higher Education [AASHE], 2018).

Sassen and Azizi (2018b) analyzed reports from US universities participating in STARS, using the same instrument adopted by Sassen and Azizi (2018a), and also observed the prevalence of the environmental aspect. The authors also pointed out that even among universities participating in STARS the percentage of adherence to the sustainability report is low, only 23 reports were identified, which corresponds to 7% of the population defined by the study. This low adherence was also observed in the study by Lopatta and Jaeschke (2014), which examined reports from German and Austrian universities, using the GRI G3 and GASU indicators combined, for the university-specific variables. However, the result of the analysis of six reports identified a balanced approach regarding the aspects, except for the social aspect, which has been little discussed.

The reports of German HEIs were studied by Sassen, Dienes and Beth (2014) and Azizi, Bien and Sassen (2018). The second study used the same instrument as Sassen and Azizi (2018a) and compared its results with their previous research. It identified that there was a small increase in the number of reports by German universities, from 4% to 5% and that there was an increase in the quantity of information published on the majority of indicators. Furthermore, Azizi, Bien and Sassen (2018) identified that the main focus of the reports prepared by German universities were: university dimension, followed by economic and lastly social dimension, being the least mentioned.

Previous studies reinforce the results reached by Lozano (2011) and Alonso-Almeida *et al.*, (2015) regarding the low adherence of HEIs to the publication of sustainability reports. However, it shows that there are differences between the countries concerning the intensity of the approach of sustainability aspects.

The institutional context of a country influences the likelihood of an organization preparing a sustainability report, according to Higgins, Stubbs and Milne (2018). Sustainability reports reflect the demands of the context in which the organization operates, and the different means of institutional pressures explain the coercive or mimetic isomorphism

in the behavior of organizations operating in the same segment. Ferri (2017) analyzed the sustainability reports of the largest publicly traded companies in Brazil, the United States and Italy, without regard to the industry in which they operated, and observed a significant difference between the disclosure of information among those countries.

## 2.2 Sustainability in Brazilian universities

The Brazilian higher education system is composed of institutions of different natures. They are either publicly or privately held. The former are sponsored by the local, state or federal government, and the latter can be either non-profit or profit making companies, and may declare themselves confessional. The institution is maintained jointly by the sponsored, which is the higher education institution that provides higher education services, and the sponsor, which is the entity that legally represents the sponsored and provides the necessary funds for its operation (MINISTÉRIO DAS RELAÇÕES EXTERIORES, 2018).

The actions of the Brazilian government related to the promotion of sustainability in education began in 1981, through the approval of the Law 6.983 / 81, which addresses the Política Nacional do Meio Ambiente (PNMA - National Environmental Policy). This document is the first to refer to “environmental education” in Brazilian legislation (BRASIL, 1981). However, Law No. 9.795, which was issued in 1999 requires for environmental education and the establishment of the Política Nacional de Educação Ambiental (National Environmental Education Policy). This document states that environmental education must be present at all levels of education, in both private and public institutions, with the purpose of enabling the population to engage actively in environmental protection (BRASIL, 1999).

Among the many events aimed at promoting sustainability in Brazilian education, the highlight goes to the V Fórum Brasileiro de Educação Ambiental (V Brazilian Environmental Education Forum), organized in response to the UN Decade of Education for Sustainable Development - from 2005 to 2014. Among the actions developed in this forum is the discussion on the nomenclature adopted for this type of education. Part of the Brazilian educators disagree with the UN’ recommendation of changing the expression *environmental education* to *education for sustainable development*, because the environmental education developed in Brazil covers also social and economic aspects. This understanding was reaffirmed in 2012, with the approval of the National Curricular Guidelines for Environmental Education held during the Rio + 20 Conference (MINISTÉRIO DA EDUCAÇÃO, 2012).

In spite of the previously mentioned actions concerning the promotion of environmental education in Brazil, according to Santos (2015), they are developed in most HEIs by means of individual initiatives or by a group of teachers, who cannot always institutionalize them. The same author points out that the current legislation represents a step forward, but requires public policies for its implementation.

In Brazil, federal public institutions are among the largest HEIs in the country, and as such, in addition to complying with the law that promotes environmental education, they must meet legal requirements to include sustainability in their management systems. One of the main requirements was established by Instrução Normativa (IN - Normative Instruction) No. 10/2012, issued by the Secretaria de Logística e Tecnologia da Informação (Department of Logistics and Information Technology), linked to the Ministério do Planejamento, Orçamento e Gestão (Ministry of Planning, Budget and Management), which provides instructions

for the preparation of Planos de Logística Sustentável (PLS - Sustainable Logistics Plans). Among the characteristics of the plans, it is worth highlighting they should provide for sustainability practices and spending rationalization and that they should be published on the website of the corresponding federal agencies or public entities, and at the end of each year, they must prepare follow-up reports, showing the performance of such entities, including the results achieved and identifying actions that will be developed or modified in the following year (MINISTÉRIO DO PLANEJAMENTO, ORÇAMENTO E GESTÃO, 2012).

Regarding the implementation of sustainability in the management of private HEIs, there is no legal obligation. It can be noted that most of private HEIs are not concerned with this issue due to a series of barriers arising from the culture and national context (BRANDLI *et al.*, 2015). Brandli *et al.*, (2015) lists the most common barriers faced by Brazilian HEIs, among them: lack of interest in the subject; lack of knowledge about sustainability by teachers, students and managers; lack of funds for sustainability projects; lack of cooperation between HEIs and organizations that promote sustainability practices. However, there are some initiatives to promote the subject in universities, among them the Associação Brasileira de Mantenedoras de Ensino Superior (ABMES - Brazilian Higher Education Sponsors Association), an entity that represents private higher education with the Brazilian government, which promotes events that disseminate the social responsibility actions developed by private HEIs, the award of which is a social responsibility seal (ABMES, 2018).

In order to help identify the approximation of Brazilian HEIs with sustainability, Deus, Battistelle and Silva (2016) researched the inclusion of sustainability aspects in the missions of the main national HEIs, and identified that only a few address sustainability in a broad way, in which environmental aspects are less frequent and social aspects, especially related to services provided to society, more frequent. It should be pointed out that according to Art. 207 of Brazil's Constitution of 1988, HEIs have teaching, research and extension as their basic and intrinsic functions (BRASIL, 1988). Therefore, actions aimed at the outside community are part of the basic functions of Brazilian HEIs.

Seibert (2017) approached the disclosure of information on sustainable practices in the websites of Brazilian philanthropic HEIs, and observed that those with a larger quantity of courses and evaluations with better quality, as well as those featuring as confessional and/or community, have a level of disclosure higher than the others. The impact of regionality was also analyzed by the author, who identified a significant difference between the level of disclosure among HEIs located in the different regions of the country, and the southern region presented the best level. However, the author did not analyze sustainability reports, but rather the information disclosed in the websites of philanthropic HEIs.

The disclosure of administrative and financial information on the Internet by public HEIs and non-profit institutions is mandatory according to the Law on Access to Information No. 12.527/2011. However, this Law does not specifically mention the treatment that should be given to information regarding the sustainability of organizations, and covers organizations from all sectors (BRASIL, 2011).

Sustainability reports of Brazilian public companies, from different industries, were recently analyzed by Hong and Gerab (2017) and Bhatia and Tuli (2017), and in both studies the authors observed an increase in quantity and quality of the reports in the last years. They also highlighted the decreased attention to the environmental aspect in the last reports

analyzed. The good performance of Brazilian public companies, from different industries, in the publication of sustainability reports was also observed by Ferri (2017).

In Brazil, in addition to the GRI model, adopted by most large-sized companies (HONG; GERAB, 2017), there is a disclosure model prepared by the Instituto Brasileiro de Análises Sociais e Econômicas (IBASE - Brazilian Institute of Social and Economic Analysis), referred to as the Modelo IBASE de Balanço Social (IBASE Model of social report), a pioneering initiative in Brazil to foster the disclosure of social-environmental actions by companies (PEÑA, 2014), in addition to the Brazilian Accounting Standard - NBC T 15, of the Conselho Federal de Contabilidade (Federal Accounting Council), which came into force in January 2006 and establishes procedures for the voluntary disclosure of social and environmental information, whether or not extracted from the company's books (CONSELHO FEDERAL DE CONTABILIDADE, 2004). It should be noted that some organizations use the previously mentioned disclosure models, along with the publication of the Value Added Statement (VAS), which demonstrates the distribution of added value among agents that interact to make up the wealth of the entity (LONDERO; BIALOSKORKI NETO, 2014).

### 3. Methodology

#### 3.1 Sample Selection

Data were collected from websites of universities that comprise the sample. The Internet is an efficient channel for obtaining data (BRYMAN; BELL, 2011). And it is a good way of disclosing sustainability reports, since it allows easy access to their content (ROLLAND; BAZZONI, 2009).

The requirements for selecting the sample were based in studies on the status of sustainability reports among corporations; these studies select the largest firms from specific industries (JENKINS; YAKOVLEVA, 2006). This study adopted the 2017 Folha University Ranking (FOLHA DE SÃO PAULO, 2017), which is the main ranking of Brazilian universities (DEUS; BATTISTELLE; SILVA, 2016) to select the sample. The 150 largest Brazilian universities were selected.

The 2017 Folha University Ranking evaluated the 195 active Brazilian universities. Data from Brazilian institutions (Capes, CNPq, Enade, Inep-MEC, INPI, and state funding agencies) and the Web of Science were adopted, as well as two Opinion polls from Datafolha, which address five aspects (research, teaching, market, internationalization and innovation). All components of the assessment can be checked at the Folha de São Paulo's website. (FOLHA DE SÃO PAULO, 2017).

This study followed previous researches and took into account reports that were clearly identified as sustainability reports or an equivalent nomenclature (e.g. FONSECA *et al.*, 2011; GAMAGE; SCIULLI, 2017). Contents made available in the body of the electronic website were not considered, nor documents that, regardless of their title, addressed only one aspect of sustainability, such as a social action reports or solid waste management report. Annual management reports were disregarded.

If a HEI had more than one report available, we restricted the sample to reports covering the 2013 - 2017 period. Reports prepared by sponsors in which the activities of the HEIs prevailed, or in which it was possible to identify information related to the HEI were

considered. Reports of groups composed of more than one HEI were not considered. The content analysis was carried out in 14 documents.

The documents were collected from June to July 2018, by searching the main menu and using the internal search engine of the universities' websites, with the following keywords: "sustainability report", "social report", "social responsibility report", "integrated reporting". The keyword "social report" (*balanço social*) was used because the first Brazilian model of disclosure of social and environmental actions, IBASE Model of social report, used this nomenclature to refer to the sustainability report. Also, it was decided to use the word "social responsibility report" because it points out that many Brazilian organizations adopt this nomenclature to refer to its sustainability report.

### 3.2 Data Collection and methods

There are several ways of analyzing the content of sustainability reports (LARRÁN-JORGE; ANDRADES; HERRERA, 2018). Indicators used in previous studies on sustainability reports were analyzed (e.g., AZIZI; BIEN; SASSEN, 2018; FONSECA *et al.*, 2011; GAMAGE; SCIULLI, 2017; LOPATTA; JAESCHKE, 2014; LOZANO, 2011; SASSEN; AZIZI, 2018a, 2018b). The indicators adopted by Sassen and Azizi (2018a, 2018b) and Azizi, Bien and Sassen (2018) were chosen, which are composed of 130 indicators. There are 9 indicators referring to economic aspects, 34 to the environmental aspect and 48 to the social aspect were extracted from the GRI G4 model. The social aspect is formed by 4 sub-aspects they are: Labor 16 indicators, Human Rights 12 indicators, Society 11 indicators, Product Responsibility 9 indicators. Only the 39 indicators referring to sustainability in the university were developed by the previously mentioned authors, based on studies mentioned in the literature review (LOZANO, 2011; FONSECA, *et al.*, 2011; LOPATTA; JAESCHKE, 2014). The university aspect is formed by 4 sub-aspects they are: Teach 12 indicators, Research 12 indicators, External Community 2 indicators and Operations 13 indicators.

The selection of the set of indicators used by Sassen and Azizi (2018a, 2018b) and Azizi, Bien and Sassen (2018) was also due to the fact that despite the Brazilian reporting models have structures that diverge from the GRI G4, their indicators are mostly covered by the GRI G4 (FERREIRA *et al.*, 2009). According to Voss, Carter and Salotti (2017), organizations are replacing them with the GRI model. In addition, these set of indicators allow comparison between the results of Brazilian HEIs with Canadian (SASSEN; AZIZI, 2018a), American (SASSEN; AZIZI, 2018b) and German (AZIZI; BIEN; SASSEN, 2018) HEIs.

The indicators were measured through content analysis, which according to Branco and Rodrigues (2008), consists in ranking the information disclosed in categories of indicators, which allows us to comprehend the social responsibility disclosed by the organization. As a way of measuring indicators, a five-point scale from zero to four was adopted, for the evaluation of the indicators, with zero denoting an absence in reporting and four denoting a complete level of reporting (AZIZI; BIEN; SASSEN, 2018; SASSEN; AZIZI, 2018a, 2018b). For an indicator to be able to be graded as (4), all requirements from the GRI guidelines or from the university-specific prerequisites for sustainability reporting needed to be met. The intermediate values signify that the reported information for the indicator was of (1) low, (2) average, or (3) good quality. If no information was disclosed, a (0) grade was given.



In order to minimize the interpretative bias of the research data, a single researcher carried out the coding process of the indicators of each HEI in at least two different moments during the document collection period in case of any divergence between the analyzes, a second researcher issued an opinion, and that same indicator was revised again in all sample documents.

In addition to measuring the indicators of the reports, the researchers identified some characteristics of the documents under analysis: title, reference year, model adopted, external audit report and the amount of reports previously published. Likewise, some characteristics of HEIs were also identified, which help identify who is preparing sustainability reports, on the website of the Ministry of Education (e-MEC) and on the website of the ranking adopted for the definition of the sample.

The comparison of the reports created by Brazilian HEI with the Canadian (SASSEN; AZIZI, 2018a), American (SASSEN; AZIZI, 2018b) and German (AZIZI; BIEN; SASSEN, 2018) HEIs, was possible because the referenced articles made available enough data for the creation of a comparison table with percentages of disclosure for each dimension. It was also possible to create a boxplot graphic portraying the disclosure of each of the cited studies. This graph allows to identify the variability of disclosure for each country.

## 4. Presentation and Discussion of Results

### 4.1 Characteristics of Higher Education Institutions and Sustainability Reports under analysis

Table 1 shows that among the 150 HEIs surveyed, documents for only 14 of them were found. This small number of HEIs that publish reports is similar to those found in other countries (FONSECA *et al.*, 2011; LOZANO, 2011; LOPATTA; JAESCHKE, 2014). Regarding the characteristics of HEI, most of them are non-confessional, non-denominational, non-profit institutions and have a varying number of students - the largest HEI analyzed, UNESA, operates nationwide and has 210,823 students, while the smallest is UFCSPA, with only 2,220 students.

Although 58.6% of the universities listed in the 2017 Folha University Ranking are public, only two of those public universities disclosed such a report. This can be explained because public HEIs are required to disclose other types of reports, which include content expected to be found in the sustainability report, such as the PLS report (MINISTÉRIO DO PLANEJAMENTO, ORÇAMENTO E GESTÃO, 2012).

There is also a clear predominance of HEIs located in the southern region of Brazil, followed by the Southeast, which has one HEI that operates predominantly in such region and three HEIs operating in several regions of Brazil, but with their headquarters located in the Southeast. This result reinforces Seibert (2017), who identified South Brazil as the region with the greatest dissemination of social responsibility practices by philanthropic HEIs.

It was observed that HEIs that publish reports have different amounts of previously published reports, some of which have been publishing for over 10 years and others have started publishing in the last couple of years. Regarding the title adopted for the analysis at issue, it was identified that the most frequent is "Social Balance", followed by "Sustainability Report". It should be pointed out that the nomenclature "Social Balance" is advised by the

IBASE model, and that, contrary to expectations (VOSS; CARTER; SALOTTI, et al.2017), the GRI model did not prevail: the GRI and the IBASE models were well balanced in the preparation of reports. It was also identified that four reports did not adopt any model, two of them presented only the VAS, and only one adopted the NBC T15 CFC model. Although Hong and Gerab (2017) have identified an upward time trend in the adoption of external audit on sustainability reports by large Brazilian companies, it was identified only two HEIs with external audits.

**Table 1 - Characteristics of HEIs and Sustainability Reports analyzed**

HEI	Number of Students	Administrative Category	Confessional	National Region of Operation	Quantity of Published Reports	Type of Document Analyzes	Reference Year	Model adopted	External Audit	
Universidade Estácio de Sá (UNESA)	210,825	Private; profit-making	no	national (Southeast)	3	Sustainability report	2016	GRI G4	no	
Universidade Presbiteriana Mackenzie (MACKENZIE)	31,743	Private; non-profit	yes	national (Southeast)	11	Sustainability report	2013/2014	GRI G4	no	
Universidade Federal de Santa Catarina (UFSC)	29,595	Federal Public	-	South	0	Sustainability report	2016	GRI G4	no	
Universidade de Caxias do Sul (UCS)	24,648	Private; non-profit	no	South	-	Social Report	2015	-	no	
Universidade Católica do Paraná (PUC-PR)	23,945	Private; non-profit	no	South	-	Social Report	2015/2016	-	no	
Universidade do Vale do Itajaí (UNIVALI)	20,759	Private; non-profit	no	South	3	Social Responsibility Report	2016	(Presents the VAS)	no	
Universidade Católica do Rio Grande do Sul (PUC-RS)	20,316	Private; non-profit	yes	South	13	Social Report	2016	-	yes	
Universidade Metodista de São Paulo (UMESP)	18,467	Private; non-profit	yes	national (Southeast)	4	Social Balance	2014	Ibase	no	
Universidade de Passo Fundo (UPF)	16,381	Private; non-profit	no	South	3	Social Balance	2016	NBC T15 CFC	no	
Universidade Feevale (FEEVALE)	15,558	Private; non-profit	no	South	5	Social Responsibility Report	2016	Ibase/ GRI G4 index	yes for ibase	
Universidade São Francisco (USF)	11,025	Private; non-profit	yes	Southeast	8	Sustainability report	2017	-	no	
Universidade do Extremo Sul Catarinense (UNESC)	10,627	Private; non-profit	no	South	10	Social Balance	2016	(Presents the VAS)	no	
Universidade da Região de Joinville (UNIVILLE)	8,196	Private; non-profit	no	South	4	Social Balance	2016	Ibase (with VAS)	no	
Universidade Federal de Ciências da Saúde de Porto Alegre (UFSCPA)	2,220	Federal Public	-	South	7	Social Balance	2015	Ibase Adaptation	no	

**Sources: Administrative category, Confessional, National Region of Operation - e-MEC (2018); The rest of the data was extracted from HEI reports.**

## 4.2 Content of the Sustainability Reports

Upon analyzing the reports, it was observed that some of them do not bring any information regarding the *Economic* dimension, and the HEIs with the highest levels of disclosure reached 44% of the points of this dimension. And among all HEIs, six out of the nine economic indicators were disclosed.

Regarding the *Environmental* dimension, the low percentage of most of HEI draws attention. UFSC was the only one to stand out, with 30%. However, it is worth mentioning that the report prepared by this university has focused on this dimension, to the detriment of others, since it did not disclose any information regarding other dimensions.

The *Social* dimension, composed of four sub-dimensions, featured the sub-dimension *Labor Practices* and *Decent Work* as the most disclosed by HEIs, and among all HEIs, 9 out of the 16 indicators were disclosed. The sub-dimension *Human Rights* was disclosed only by two HEIs: MACKENZIE reached the highest disclosure level with 17% of the points, followed by PUC-PR with 2%, the others HEIs did not disclose any indicators regarding human rights. The sub-dimension *Society* also counted on a small number of HEIs that disclosed information in that regard, only four of them disclosed any information. The

highlight goes to UNESA and MACKENZIE, which obtained 27% of the points. The sub-dimension *Product Responsibility* had a more homogenous disclosure: eleven HEIs disclosed one indicator, and UNESA published two indicators, which was the highest level in this sub-dimension. In the overall *Social* indicator, the HEI that obtained the highest level of disclosure was MACKENZIE, with 21%.

The *University* dimension also had four sub-dimensions, the less disclosed of which was *Research*, in which half of HEIs did not disclose any information. In this sub-dimension, PUC-RS and FEEVALE stood out with 25% of the points. The *Teaching* sub-dimension was not disclosed by only two HEIs and had two HEIs with 42% of the points. The *Operations* sub-dimension, in turn, had a higher disclosure than the two sub-dimensions mentioned above: 11 out its 13 indicators were disclosed, highlighting USF, which obtained 77% of the points. And the sub-dimension *External Community*, composed of only two indicators, was 100% disclosed by 13 HEIs. In the overall indicator of the University aspect, the HEI that obtained the highest disclosure level was FEEVALE, with 37%.

**Table 2 – Disclosure Percentages of HEIs by dimensions and sub-dimensions**

HEI	EC %	EN %	SO %					UN %					OVERALL %
			LA	HR	SC	PR	Overall SO	TE	RE	EC	OP	Overall UN	
MACKENZIE	11	21	25	17	27	11	21	42	8	100	38	33	24
FEEVALE	33	15	31	0	9	11	15	8	25	100	65	37	23
UNESA	44	0	25	0	27	22	19	17	0	100	38	23	17
UNESC	11	9	19	0	0	11	8	8	0	100	69	31	15
UNIVALI	22	3	17	0	0	11	8	42	0	100	38	31	14
USF	0	0	6	0	0	11	4	17	0	100	77	36	12
PUC-RS	0	6	3	0	0	6	2	10	25	100	46	31	12
UFCSIPA	19	6	14	0	2	0	5	2	0	100	38	19	10
UNIVILLE	28	0	9	0	0	6	4	2	13	100	25	18	9
UFSC	0	30	0	0	0	0	0	0	0	0	0	0	8
UMESP	28	0	2	0	0	6	2	15	2	100	6	12	6
UCS	0	6	3	0	0	6	2	2	2	100	13	11	6
UPF	14	4	8	0	0	3	3	0	0	100	8	8	5
PUC-PR	0	0	3	2	0	3	2	2	17	100	10	14	5
Average	15	7	12	1	5	8	7	12	7	93	34	22	
Disclosed indicators (number of indicators disclosed / total number of indicators)	6/9	18/34	9/16	3/12	4/11	3/9	19/48	7/12	7/12	2/2	11/13	27/39	70/130

**Notes:** LA – Labor; HR – Human Rights; SC – Society; PR – Product Responsibility; TE – Teach; RE – Research; EC – External Community; OP - Operations

**Source:** research data

Adding the four dimensions, most of the HEIs reported from 5% to 24% of the points, which means that the reports of the HEIs under analysis do not cover most of the indicators completely. Table 2 brings the disclosure levels of HEI by dimension and sub-dimension, and the HEIs were ranked by the total disclosure level. In this table, it can also be observed the percentage average of each dimension and sub-dimension and it can be clearly seen that the *University* dimension is the most disclosed, while the *Environmental* dimension is the least disclosed.

Besides, by analyzing information in Table 1 and Table 2 jointly, it was not possible to link the content of the reports to the characteristics of the HEIs, which demonstrates the need to develop further researches to understand the reasons that lead the Brazilian HEIs to carry out sustainable actions and disseminate them through reports.

### 4.3 Comparison of disclosure level

Table 3 presents data from previous studies that allows a comparison of the results presented in this research, as already commented previously in the method section. Table 3 also presents the number of HEIs analyzed, the period of the reports analyzed, and the average percentage of the disclosure by dimension for each HEI.

The Brazilian HEIs in comparison with other countries have a small percentage of publications in the environmental dimension of 7%, however this dimension is the most publicized with 30% disclosure among HEIs in the United States and 15% among the HEI's in Canada. German HEI's are the third most publicized dimension, with 15% of disclosure.

There is also a 7% disclosure of the social dimension of Brazilian HEIs, but this number in comparison with the percentage of disclosure in Canada and Germany is high, and equal to the percentage found in American HEIs, therefore comparatively the level of disclosure of the social dimension is high, even though the environmental dimension has the lowest level of disclosure frequency among HEIs in Brazil.

The economic dimension of Brazilian HEIs was 15%, close to the 16% of the German and 11% of the American, but much higher than the 4% disclosure of the Canadian HEIs. The most publicized dimension of Brazilian HEIs is the university dimension, which reached 22%, which is also close to the 23% of German and 21% of the American HEIs, but higher than the 13% disclosure of the Canadian HEIs.

**Table 3 - Results of previous studies used the same indicators**

Analysed Countries	Author	N	PERIOD	EC (%)	EN(%)	SO(%)	UN(%)
Usa	Sassen and Azizi, 2018b	23	2012–14	11	30	7	21
Canada	Sassen and Azizi, 2018a	20	2011–15	4	15	1	13
Germany	Azizi et al. (2018)	21	2007–16	16	15	4	23
Brazil	this study	14	2013-17	15	7	7	22

**Notes: The sample used by Azizi, Bien and Sassen (2018) was composed by 40 reports from 21 universities. In order to compare the results it was identified the most recente report in this sample to calculate the percentages of disclosure of the dimensions.**

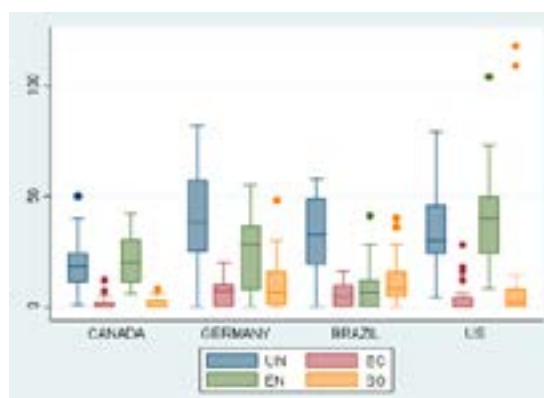
Graph 1 presents the boxplot of the disclosure by size of each research. The graph shows the distribution of the sustainability reports of the universities for each country in one of the dimensions, increasing the comparison, since the average value hides the variability of disclosure among the HEIs of the same country.

In the environmental dimension German HEI's are the third most publicized, however when looking at Graph 1 it can be observed that it is more heterogeneous when compared

to the disclosure of the Canadian HEIs. It can also be observed that Brazilian HEIs have homogenous behavior of low disclosure with few exceptions, being the UFSC the outlier of the dimension.

In the social dimension it is identified that all countries have outliers in this dimension, for Brazil the outliers are UNESA and MACKENZIE. The economic dimension is the one that has the lowest number of indicators, so the values in Graph 1 are small, although the percentage of disclosure is not very low. There are also reports in all countries without information in this dimension. In the university dimension, it is identified that in this dimension the country with the greatest homogeneity is Brazil, but it is the dimension where the greatest variability of disclosure among Brazilian HEIs is observed.

**Graph 1 - Disclosed sustainability indicators**



Source: research data

## 5. Final Considerations

The data brought up by this research shows which Brazilian HEIs prepare sustainability reports, how these reports are prepared, what they communicate, besides comparing the level of disclosure found in Brazilian HEIs with the results of studies developed in other countries. This description provides an overview of the status of sustainability reports in Brazilian HEIs. This information is useful for university managers, since it allows them to assess the status of their organizations with regard to this subject, for policymakers, since it allows them to consider how the public sector may carry out actions to promote the interest of HEIs in developing sustainability reports, and for scholars who study the subject, since based on the overview provided, they may outline the needs of future researches.

It was possible to observe that few HEIs publish sustainability reports in Brazil, and that most of the institutions are private although the population studied is mostly public, this result points to the need to research the reasons that lead public HEIs not to prepare sustainability reports. Although public HEIs meet specific disclosure demands, as mentioned in the literature review, no study was found in the literature demonstrating the degree of compliance of these HEIs with these specific disclosure requirements.

Another feature observed in most HEIs that publish sustainability reports was their location, since they are mostly located in the Southern Region. This result corroborates

Seibert (2017), and reinforces the need to develop researches that analyzes the geographic factors that influence HEIs in the preparation of sustainability reports.

Regarding the way reports are prepared, it was found that, unlike what was observed in Brazilian organizations from other sectors (HONG; GERAB, 2017), the reports of HEIs do not prioritize GRI as a model, and external audit is not a common practice. Besides, the diversity of report titles reiterates that there is no consensus on the form of the document. Therefore, it would be relevant if other researches could identify the reason for which HEIs do not follow the trend observed in other sectors.

There was also an intent to determine if there was any relationship between the characteristics of the HEIs and the content of their reports, however it was not possible to identify any link, which demonstrates the need to develop further researches to identify the key drivers of sustainability reports. Therefore, it is advised that other researchers study reports of Brazilian HEIs, using methodologies that allow them to learn the reasons that lead only a small number of HEIs to adopt the practice of preparing sustainability reports.

Compared to prior studies the level of reporting in *Environmental* dimension of Brazilians HEI's was very low. One explanation could be that the Brazilian models of reporting prioritize *Social e Economic* dimensions. For the other dimensions, the Brazilian HEIs had similar results to the ones observed in United States, Canada and Germany. However, each country presents a different distribution of disclosure of each dimension. This difference between countries reinforces the need to deepen the studies with the purpose of learning the factors that influence the difference of behavior between institutions from different countries with regard to the content of their sustainability reports.

## References

AASHE (The Association of Advancement of Sustainability in Higher Education) STARS Overview, 2018. Available at: <https://stars.aashe.org/pages/about/stars-overview.html> . Accessed 30 April 2018.

ABMES (Associação Brasileira de Mantenedoras de Ensino Superior). **Selo IES Responsável**, 2018. Available at: <https://www.responsabilidadesocial.abmes.org.br/index.php/campanha/selo-ies-responsavel> Accessed 19 April 2018.

ALBRECHT, P.; BURANDT, S.; SCHALTEGGER, S. Do sustainability projects stimulate organizational learning in universities?. **International Journal of Sustainability in Higher Education**, v. 8, n.4, p. 403-415, 2007. <https://doi.org/10.1108/14676370710823573>

ALONSO-ALMEIDA, M. D. M.; MARIMON, F., CASANI, F.; RODRIGUEZ-POMEDA, J. Diffusion of sustainability reporting in universities: current situation and future perspectives. **Journal of Cleaner Production**, n. 106, p.144-154, 2015. <https://doi.org/10.1016/j.jclepro.2014.02.008>

AZIZI, L.; BIEN, C.; SASSEN, R. Recent trends in sustainability reporting by German universities. **Sustainability Management Forum**, v.26, n.1-4, p. 65-85, 2018. <https://doi.org/10.1007/s00550-018-0469-8>

- BHATIA, A.; TULI, S. Sustainability Reporting under G3 Guidelines: A Study on Constituents of Bovespa Index. **Vision**, v.21, n.2, p.204–213, 2017. <https://doi.org/10.1177/0972262917701031>
- BRANDLI, L.L.; LEAL-FILHO, W.; FRANDOLOSO, M. A. L.; KORF, E. P.; DARIS, D. The environmental sustainability of Brazilian Universities: barriers and pre-conditions, in Leal Filho, W., *et al.* (Eds). **Integrating Sustainability Thinking in Science and Engineering Curricula**. Springer, Switzerland, p. 63-74, 2015.
- BRANDLI, L. L.; SALVIA, A. L.; MORO, L. D.; ROCHA, V. T.; MAZUTTI, J.; REGINATTO, G. How can ecological fairs increase sustainability in a university campus? **International Journal of Sustainability in Higher Education**, v. 20, n.3, p. 515-529, 2019. <https://doi.org/10.1108/IJSHE-02-2019-0055>
- BRASIL. Constituição da República Federativa do Brasil de 1988. Available at: [http://www.planalto.gov.br/ccivil\\_03/constituicao/constituicaocompilado.htm](http://www.planalto.gov.br/ccivil_03/constituicao/constituicaocompilado.htm). Accessed 18 July 2018.
- BRASIL. Lei n.º 6.938 de 31 de agosto de 1981, Diário Oficial da União, Brasília. Available at: [http://www.planalto.gov.br/ccivil\\_03/leis/l6938.htm](http://www.planalto.gov.br/ccivil_03/leis/l6938.htm) . Accessed 30 April 2018.
- BRASIL. Lei nº 9.795, de 27 de abril de 1999, Diário Oficial da República Federativa do Brasil, Brasília. Available at: [http://www.planalto.gov.br/ccivil\\_03/leis/l9795.htm](http://www.planalto.gov.br/ccivil_03/leis/l9795.htm) . Accessed 30 April 2018.
- BRASIL. Lei nº 12.527, de 18 de novembro de 2011, Diário Oficial da República Federativa do Brasil, Brasília. Available at: [http://www.planalto.gov.br/ccivil\\_03/\\_ato2011-2014/2011/lei/l12527.htm](http://www.planalto.gov.br/ccivil_03/_ato2011-2014/2011/lei/l12527.htm) .Accessed 18 July 2018.
- BRYMAN, A.; BELL, E. **Business Research Methods**. Oxford University Press, Oxford. 2011.
- CEULEMANS, K.; LOZANO, R.; ALONSO-ALMEIDA, M. D. M. Sustainability reporting in higher education: Interconnecting the reporting process and organizational change management for sustainability. **Sustainability**, v.7, n.7, p. 8881-8903. 2015. <https://doi.org/10.3390/su7078881>
- CEULEMANS, K.; MOLDEREZ, I.; VAN LIEDEKERKE, L. Sustainability reporting in higher education: a comprehensive review of the recent literature and paths for further research. **Journal of Cleaner Production**, v. 106, p. 127-143. 2015. <https://doi.org/10.1016/j.jclepro.2014.09.052>
- CONSELHO FEDERAL DE CONTABILIDADE, **Resolução CFC nº 1.003/04 Aprova a NBC T 15 – Informações de Natureza Social e Ambiental**. 2004. Available at: [http://www1.cfc.org.br/sisweb/sre/docs/RES\\_1003.doc](http://www1.cfc.org.br/sisweb/sre/docs/RES_1003.doc) . Accessed 01 May 2018.
- DEUS, R.M.; BATTISTELLE, R.A.G; SILVA, G.H.R. Sustainability insights from the mission statements of leading Brazilian Universities. **International Journal of Educational Management**, v.30, n.3, p.403-415, 2016. <https://doi.org/10.1108/IJEM-05-2014-0065>
- DIENES, D.; SASSEN, R.; FISCHER, J. What are the drivers of sustainability reporting? A systematic review. **Sustainability Accounting, Management and Policy Journal**, v.7 n.2, p. 154–189, 2016. <https://doi.org/10.1108/SAMPJ-08-2014-0050>

ENGELMAN, R.; TOMETICH, P.; SCHREIBER, D.; NASCIMENTO, L. F.; FRACASSO, E. M.; FIGUEIRÓ, P. S. Environmental management in Brazilian higher education. **International Journal of Management in Education**, v. 13, n.1, p. 59-81, 2019. <https://doi.org/10.1504/IJMIE.2019.096477>

FERREIRA, L. F.; TRÊS, L. D.; GARCIA, G. E.; JUNIOR, G. J. B.; FERREIRA, D. D. M. Indicadores de Sustentabilidade Empresarial. **Simpósio de Excelência em Gestão e Tecnologia**, Resende – RJ, 2009

FERRI, L.M. The influence of the institutional context on sustainability reporting. A cross-national analysis. **Social Responsibility Journal**, v. 13, n.1, p.24-47, 2017. <https://doi.org/10.1108/SRJ-11-2015-0172>

FOLHA DE SÃO PAULO. **Ranking de universidades 2017**. Available at: <https://ruf.folha.uol.com.br/2017/o-ruf/ranking-universidades/>. Accessed 09 July 2018.

FONSECA, A.; MACDONALD, A.; DANDY, E.; VALENTI, P. The state of sustainability reporting at Canadian universities. **International Journal of Sustainability in Higher Education**, v. 12, n.1, p. 22-40, 2011. <https://doi.org/10.1108/14676371111098285>

FRANCO, I. T.; TEIXEIRA, M. G.; AZEVEDO, D. B.; MOURA-LEITE, R. C. The Integration of Sustainability in Management Education: How do teachers see the Subject? **Administração: Ensino e Pesquisa**, v.16, n..3, p. 571-607, 2015. <https://doi.org/10.13058/raep.2015.v16n3.284>

FRANCO, I. T.; MOURA-LEITE, R. C. PEREIRA, M. W.G; LOPES, J. C. J. Personal values and approach of undergraduates towards corporate social responsibility. **Social Responsibility Journal**, v. 13, n.3, p.457-472, 2017. <https://doi.org/10.1108/SRJ-09-2016-0165>

GAMAGE, P.; SCIULLI, N. Sustainability reporting by Australian universities. **Australian Journal of Public Administration**, v.76, n.2, p. 187-203, 2017. <https://doi.org/10.1111/1467-8500.12215>

GÓES, H. C. A.; MAGRINI, A. Higher education institution sustainability assessment tools Considerations on their use in Brazil. **International Journal of Sustainability in Higher Education**, v.17, n.3, p. 322–341, 2016. <https://doi.org/10.1108/IJSHE-09-2014-0132>

HIGGINS, C.; STUBBS, W.; MILNE, M. Is sustainability reporting becoming institutionalized? The role of an issues-based field. **Journal of Business Ethics**, v.147, n.2, p. 309-326, 2018. <https://doi.org/10.1007/s10551-015-2931-7>

HONG, Y.C.; GERAB, F. Sustainability reports in Brazil through the lens of signaling, legitimacy and stakeholder theories. **Social Responsibility Journal**, v.13, n.1, p. 95-110, 2017. <https://doi.org/10.1108/SRJ-10-2015-0147>

INEP - Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. **Sinopse Estatística da Educação Superior 2016** . Brasília. Available at: <http://portal.inep.gov.br/basica-censo-escolar-sinopse-sinopse> .Accessed 09 July 2018.



JENKINS, H.; YAKOVLEVA, N. Corporate social responsibility in the mining industry: exploring trends in social and environmental disclosure. **Journal of Cleaner Production**, v.14, p. 271-84, 2006. <https://doi.org/10.1016/j.jclepro.2004.10.004>

LARRÁN-JORGE, M.; ANDRADES, F.; HERRERA, J. An analysis of university sustainability reports from the GRI database: an examination of influential variables. **Journal of Environmental Planning and Management**, 2018. <https://doi.org/10.1080/09640568.2018.1457952>

LARRÁN-JORGE, M.; MADUEÑO, J. H.; CEJAS, M. Y. C.; PEÑA, F. J. A. An approach to the implementation of sustainability practices in Spanish universities. **Journal of Cleaner Production**, v. 106, p. 34-44, 2015. <https://doi.org/10.1016/j.jclepro.2014.07.035>

LOPATTA, K.; JAESCHKE, R. Sustainability reporting at German and Austrian universities. **International Journal of Education Economics and Development**, v.5, n.1, p. 66-90, 2014. <https://doi.org/10.1504/IJEED.2014.059868>

LONDERO, P.R.; BIALOSKORSKI S. Identificação de Características das Cooperativas Agropecuárias que Influenciam a Geração de Valor Adicionado. **Revista de Gestão e Organização Cooperativas**, v.1, n.1, p.13-28, 2014 <http://dx.doi.org/10.5902/2359043215433>

LOZANO, R. A tool for a graphical assessment of sustainability in universities (GASU). **Journal of Cleaner Production**, v. 14, p. 963-972, 2006. <https://doi.org/10.1016/j.jclepro.2005.11.041>

LOZANO, R. The state of sustainability reporting in universities. **International Journal of Sustainability in Higher Education**, v. 12, n.1, p. 67-78, 2011. <https://doi.org/10.1108/14676371111098311>

LOZANO, R. MINISTÉRIO DA EDUCAÇÃO. Resolução n. 2, de 15 de junho de 2012. Estabelece as Diretrizes Curriculares Nacionais para a Educação Ambiental , Brasília. Available at: <http://conferenciainfanto.mec.gov.br/images/conteudo/iv-cnijma/diretrizes.pdf> . Accessed 01 April 2018.

MINISTÉRIO DO PLANEJAMENTO, ORÇAMENTO E GESTÃO. Instrução Normativa nº 10, de 12 de novembro de 2012. Brasília. Available at: [http://www.mma.gov.br/images/arquivo/80063/141112\\_IN10.pdf](http://www.mma.gov.br/images/arquivo/80063/141112_IN10.pdf) . Accessed 05 April 2018.

MINISTÉRIO DAS RELAÇÕES EXTERIORES. Denominações das Instituições de Ensino Superior (IES), Brasília. Available at: [http://www.dce.mre.gov.br/nomenclatura\\_cursos.html](http://www.dce.mre.gov.br/nomenclatura_cursos.html) Accessed 25 June 2018.

NTIM, C.G.; SOOBAROYEN, T.; BROAD, M.J. Governance structures, voluntary disclosures and public accountability: the case of UK higher education institutions. **Accounting Auditing & Accountability Journal**, v.30, n.1, p.65–118, 2017. <https://doi.org/10.1108/AAAJ-10-2014-1842>

PEÑA, A.M. The political trajectory of the Brazilian CSR movement. **Critical Perspectives on International Business**, v. 10, p. 310-328, 2014. <https://doi.org/10.1108/cpoib-03-2014-0016>

ROLLAND, D.; BAZZONI, J. Greening corporate identity: CSR online corporate identity reporting, **Corporate Communications: An International Journal**. v.14, n.3, p. 249-263, 2009. <https://doi.org/10.1108/13563280910980041>

SANTOS, R. S. S. D. **Olhares a respeito da educação ambiental no currículo de formação inicial de professores**. Tese de Doutorado em Educação. Universidade de Brasília, Brasília, 2015.

SASSEN, R.; AZIZI, L. Voluntary disclosure of sustainability reports by Canadian Universities. **Journal of Business Economics**, v.88, n.1, p 97-137, 2018a. <https://doi.org/10.1007/s11573-017-0869-1>

SASSEN, R.; AZIZI, L. Assessing sustainability reports of US universities. **International Journal of Sustainability in Higher Education**. v.19, n.7, p.1158-1184, 2018b. <https://doi.org/10.1108/IJSHE-06-2016-0114>

SASSEN, R.; DIENES, D.; BETH, C. (2014). Nachhaltigkeitsberichterstattung deutscher Hochschulen (Sustainability reporting of German higher education institutions). **ZfU Z Umweltpolit Umweltr**, v. 37, n.3, p.258-277, 2014.

SEIBERT, R.M. Determinantes da evidenciação de informações representativas de responsabilidade social: um estudo em instituições de ensino superior filantrópicas, Tese Ciências Contábeis, Universidade do Vale do Rio dos Sinos, São Leopoldo, 2017.

VOSS, L. B; CARTER, D. B.; SALOTTI, B. M. Hegemonies, Politics, and the Brazilian Academy in Social and Environmental Accounting: A Post-Structural Note. In: **Advances in Environmental Accounting & Management: Social and Environmental Accounting in Brazil**. Advances in Environmental Accounting & Management, v. 6: Emerald Publishing Limited, 2017. p. 13-68.

WORLD ECONOMIC FORUM. **The world's 10 biggest economies in 2017**. Available at: <https://www.weforum.org/agenda/2017/03/worlds-biggest-economies-in-2017/>. Accessed 03 May 2018.