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Sustainable development in Business Administration programs of excellence in Brazil

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Abstract

Organizations are under increasing pressure to incorporate the principles of sustainability into their policies and activities to meet the challenge of balancing environmental, economic and social well-being. Thus, we argue that in the process of preparing future manager in Business Administration programs it is essential to broaden awareness among students about the importance of incorporating issues related to sustainability into their professional practices. The purpose of this article is to investigate how the undergraduate Business Administration programs in Brazil are incorporating the theme sustainable development to prepare students through the courses offered. Therefore, we analyzed the content of the disciplines offered on the programs considered of excellence, based on indicator for academic results evaluated by the National Institute of Educational Studies and Research from the Ministry of Education (The criteria used to consider a programs of excellence is based on indicator for academic results evaluated by the National Institute of Educational Studies and Research from the Ministry of Education of the Brazilian federal government. And, the parameters used for it are explained in the methodological section of this article). The research results demonstrate the necessity to encourage not only the inclusion of disciplines on this theme in Brazilian academic programs, but to reinforce the investments on higher education, especially considering the contrast with the North and Northeast regions in comparison to South and Southeast.

Keywords: Sustainable development, Business Administration programs, Brazil

Background

Organizations are under increasing pressure to incorporate the principles of sustainability into their policies and activities to meet the challenge of balancing environmental, economic and social well-being (Labuschagne et al. 2005). Thus, we argue that in the process of preparing future managers in Business Administration programs it is essential to broaden awareness among students about the importance of incorporating issues related to sustainability into their professional practices. This theme can not be neglected, or deemed less important than other more traditional subjects in the education of administrators.

In this article, we investigate how the undergraduate Business Administration programs of excellence in both public and private institutions in Brazil are incorporating the theme sustainable development to prepare students through the courses offered. Thus, the discussions on sustainability need focus on the formation of future managers

that will assume different positions in organizations, because by means of high education these professionals can reflect and act to contribute on the development of new processes and practices that integrate environmental, social and economic dimensions (Domask 2007). In this sense, when analyzing Brazil context, it becomes possible to present an overview on the subject sustainability based on the analysis of the curriculum of management excellence courses.

The analysis of sustainability based on model dimensions of Triple Bottom Line needs to be a concern not only in academic field, but also in organizations. With regard to this, connecting theory and practice is essential for the development of a curriculum that provides the foundation for the development of these professionals, especially when it concerns to think in sustainability not as one-dimensional, but interdisciplinary (Savelyeva and Mckenna 2011). Thus, the unfolding of social responsibility notion in the various professions can be the central element by means of which society as a whole will develop sustainably. This process involves significant changes in the way that teaching and research is carried out in higher education institutions.

Brazilian universities are deploying new curriculum models that address sustainability, but there are few courses that offer courses on this topic. Thus, this article aims to analyze how management excellence courses in Brazil incorporate in their curriculum the issue of sustainability. This paper is composed of this introduction, the theoretical foundation for the theme higher education and sustainability, sustainability curriculum and its implications on the formation of future managers. Based on the concepts and the research method, the results are presented and analyzed and final considerations are made.

Sustainability and higher education

The debate on higher education and sustainability have gained attention in recent years especially on the concern about the formation of professionals who will assume key positions in organizations. The focus on sustainability is not new, but there are still issues that need to be discussed, especially in the higher education field.

Discussions about sustainable development theme or sustainability was highlighted in the work of the English economist John Elkington from the British consulting firm “SustainAbility”, which established the “Triple Bottom Line” model for measuring sustainability based on three aspects: environmental, economic and social. This model has generated repercussions around the world becoming widely accepted in business and academic circles, which underscores the importance of the theme in curriculums of undergraduate Business Administration programs. The “Triple Bottom Line” is a performance measure that does not include the economic performance, but social and environmental performance (Elkington 1998).

According to Elkington (2001) the economic, social and environmental pillars can be intersected. For instance, the intersecting of economic and environmental aspects generate eco-efficiency, such as the correct use of production equipment applied to technology, thus generating a reduction in environmental degradation and a reduction of environmental costs. Meanwhile the intersection of the social and environmental aspects generate environmental justice, which is responsible for intra and inter-generational equity, thus generating a need for investments in education and training for

individuals and communities. The intersection of the economic and social aspects that generate business ethics is the way that the company invests and relates to society, treating all people equally, as well as including stakeholders in the economic transactions of the company. Although the advancements on these aspects enable to rethink the impact of modern organizations, there is a necessity to explore in deep these pillars on the educational field, not only discursively, but into the everyday practices that will be a reality for undergraduate students.

UNESCO¹ (2013) pointed out the importance of education as the main agent of transformation for reaching the goals of sustainability. The relevance of education for the purposes of sustainability in the world at this moment was delineated in Agenda 21, one of the main planning documents for achieving sustainable development. In chapter 36, this document emphasizes the importance of education for establishing environmental awareness, ethics and values compatible with sustainable development.

Chusid (2010) suggests that education for sustainability should be discussed in undergraduate and graduate programs. In this sense, for Lewis et al. (2008) environmental education is a rapidly growing research field for sustainability, and it is a perspective that raises awareness and contributes to the development of systemic thinking. This aspect becomes effective if there is a behavior change at the individual level, as notes Savageau (2013, p. 22): “incentives and fees and other means of extrinsic policies can help. However, if individuals do not internalize the changes into their behavior and are not more actively engaged in finding personal means for auditing their behavior and choices, sustainability will remain remote and impersonal”. Moreover, change also needs to be at a collective level, in this aspect the educational field becomes relevant.

The effectiveness of Education for Sustainability (EfS—Education for Sustainability) as emphasized by Littledyke et al. (2013) depends on a clear vision of leadership and support based on agreements and sustainable practices, through governance, curricular aspects and the infrastructure of Higher Education Institutions. The research conducted by Littledyke et al. (2013) in some universities showed that the main challenge was establishing a mutual understanding about the importance and nature of sustainable issues among employees and students, which in a way shows that the process of awareness only takes place when all of the actors involved are engaged in social and sustainable practices. Thus, the university is as an important agent for EfS, because it has the potential to influence its stakeholders, especially the local community. Thus, new curriculum models can be a source of reflections about the impact of organizational activities on economic, social and environmental dimensions.

New curricular models are being implemented in academy (Savelyeva and Mckenna 2011). However, methods for evaluating the curriculum content are mostly based on student satisfaction levels and learning results rather than the evaluation of new research and teaching techniques. Universities are employing interdisciplinary curricular models in an attempt to develop new approaches for teaching sustainability, however these practices are insufficient for changing the way sustainability is currently being taught. In this sense, according to Moore (2005, p. 78): “the university is a diverse entity with a multiplicity of roles in society. These roles include research, community outreach,

¹ United Nations Educational, Scientific and Cultural Organization.

technological innovation, and knowledge creation". Thus, for the author the term sustainability is a concept, a goal, and a strategy. It is up to the universities as learning institutions, disseminate and promote sustainability as a concept so that it becomes known both as an objective to be reached and as strategy for action.

Sustainability curriculum in higher education

Incorporating the theme sustainability into the higher education curriculum should be based on a firm decision that has the potential to change the way professionals think and work (De Ciurana and Filho 2006). The education should be focused not only on a good curricular and on research proposals, but also on a practical change that goes deeper involving epistemological, political and social aspects of all stakeholders at the university. Thus, the unfolding of the notion of social responsibility in the various professions can be the central element through which society as a whole will develop sustainably. This process involves significant changes in the way teaching and research is carried out in higher education institutions.

Higher Education Institutions can develop a curriculum that promotes sustainability, which helps future professionals to reflect on the practice of the profession and its possible outcomes in the social field (Stephens et al. 2008). As discussed by Domask (2007), learning through experience should be encouraged, especially in aspects related to sustainability, whereas requires connect theory and practice in a interdisciplinary way. The production of knowledge and the exchange of integrated information to different knowledge areas can collaborate with the application of this knowledge, resulting in social change. Stephens et al. (2008) suggest that higher education is based on its position in society and it can contribute to social sustainability, foster the need for new mechanisms and research approaches for conducting research in higher education in a way that establishes direct engagement with the external community and higher education institutions.

Based on these issues, universities and higher learning institutions contribute to promoting quality of life in the societies where they operate (Yuan 2001). Higher learning institutions have started making systemic changes by steering education towards sustainability, in addition to conducting research and working in the community through sustainability-oriented activities (Wals 2013). This orientation for sustainability is argued by Motloch et al. (2007), that the establishment of a shared network that involves people, ideas and resources that can promote sustainability and innovation and, consequently provide a sustainable future, in such a way that universities play a key role in this process.

Lopez (2013) conducted a study at an American university and found that it is possible to involve the academic community and the external community with the university to reflect on the sustainability theme and get them to create a sustainable university. In the 2010–2011 the academic theme was "Sustainability: Science, Policy, and Opportunity", the theme was shared by everyone to stimulate reflection and sustainable practices. The university established five principles of instrumental practices for reaching the proposed objective. The principles are: (1) Learning builds on people's previous experiences; (2) Learning takes place best in a social setting; (3) Diverse learning contexts support people's diverse learning needs; (4) Connected, organized and relevant information develop

high-order thinking skills and; (5) Feedback and active evaluation further new knowledge and skill development.

One of the main contributions of Lopez (2013) is on the issue of teaching sustainability in a non-specific context, for example: in a course focusing on social and environmental issues, according to the author, non-course Common Experience activities are especially important in sustainability education. In non-course Common Experience activities, learners engage in affective development through critical self-reflection where they compare changes in their prior values, attitudes, behaviors, and preferences about sustainability after experiencing an activity (Lopez 2013, p. 295). In other words, for sustainable development to take hold, teaching students goes beyond involving them in disciplines that cover the theme, it also must create opportunities for contact with the theme in other ways. The main objective must be cultivated as “a common intellectual conversation across the campus, to enhance students’ participation in the intellectual life of the campus, and to foster a sense of community across the campus and extended community” (Lopez 2013, p. 305).

The conception of curriculum on business programs based on sustainability promotes new possibilities for education of future managers. Although sustainable development should be promoted beyond the boundaries of the classroom in order to also be part of initiatives of educational institutions. As stressed by Velazquez et al. (2005) the main factors which influence the effectiveness of sustainable initiatives in higher learning institutions are for example: a lack of awareness, interest, and involvement; lack of funding; lack of support from university administrators; resistance to change; a mindset to profit; lack of more rigorous regulations; lack of interdisciplinary research; lack of performance indicators; lack of policies to promote sustainability on campus; among other factors also cited.

The Brazilian context

Looking at Brazilian context, according to Khan (2013), 52 Brazilian universities signed the Talloires Declaration, which is the second largest number of universities in a single country after the American universities. This declaration was created at an international conference in Talloires, France, where universities in administration made a commitment to sustainability in higher learning. This commitment is for teaching, research, operations and advertising at colleges and universities. This declaration is managed by the *Association of University Leaders for a Sustainable Future* (ULSF) (source: www.ulsf.org).

Nevertheless, in a study conducted by Palma et al. (2011), the authors analyzed Business Administration programs at the Federal Universities in Brazil, and only 33 % of these offered disciplines related to sustainability. The results point to shortcomings in relation to the adoption of required disciplines on sustainability. This gap may compromise “students ability to reflect on the role of organizations in society” (Palma et al. 2011, p. 255). The authors suggested new studies to be carried out in Brazil that include the Business Administration programs at both public and private institutions, which we sought to include in this article.

Method

This article aims to investigate how the undergraduate Business Administration programs of excellence in public and private institutions in Brazil are incorporating the theme sustainable development by analyzing the list of disciplines offered. As an indicator for academic results the program score (Conceito Preliminar do Curso—CPC, in Portuguese) was used, evaluated by the National Institute of Educational Studies and Research (INEP) from the Ministry of Education (MEC, acronym in Portuguese) an agency of the Brazilian federal government.

The quality indicator for higher learning institutions at the undergraduate level in Brazil is based on the CPC (program score) as mentioned above. This indicator is supplied by Inep—Instituto Nacional de Estudos e Pesquisas Educacionais, of the Ministry of Education (MEC). The CPC is the average of different quality measures for a program. The parameters used for these measures are as follows: the Enade score (which measures the performance of students beginning and concluding the programs), the Performance Difference Rate—Índice de Diferença de Desempenho (IDD, in Portuguese) and the input variables. The IDD is the average grade of a student at the beginning and end of the program. The data on the input variables take into consideration: faculty, infrastructure and the pedagogical program—and are collected based on information from the Higher Learning Census and the responses to the socio-economic survey conducted by Enade.

In Brazil Higher Learning Institutions (HLI) can be public or private. The public HLI are funded by the federal government or by states and municipalities; and the private HLI are funded by civil society. According to the Ministry of Education, through e-Mec (the Regulation System for Higher Learning, available at www.emec.mec.gov.br), there are 288 public HLI being funded by municipal, state and federal governments and 2333 private HLI, totaling 2621 HLI. Of these 2621 institutions, 1624 Business Administration programs are offered.

For this study all of the undergraduate programs in Business Administration with a maximum score on the Preliminary Program Score (CPC) were selected, based on data published by INEP (2015) on their website (www.portal.inep.gov.br/). In Brazil only 24 Business Administration programs have been given the maximum score (5) on the Preliminary Program Score (CPC) (division by region of the country is shown in Table 1), such that these programs are considered of excellence and represent only 1.48 % of the total Business Administration programs. This low representation of excellence programs takes place by the fact that the criteria used by INEP were not achieved by the programs evaluated.

Table 1 Brazilian Business Administration programs of excellence by region

Region in Brazil	Number of programs
South	4
Southeast	15
Midwest	2
Northeast	2
North	1

Source: Elaborated by the authors

The research data were gathered from April to May of 2015 from the sites of the selected HLI. All of the 24 undergraduate programs in Business Administration included in this study provide the list of disciplines on their websites, based on the assumption that the list was up-to-date and represents the reality of the program. To analyze the list of courses, only the disciplines with nomenclature indicating aspects of the economic, social and environmental dimensions of the TBL were considered. For example, disciplines as Environmental Management, Social Responsibility, Sustainable Development, Social Management, Strategies of Sustainable Businesses, Corporate Social Responsibility were selected to be part of the analysis.

In this study we used the documentary analysis. According to Yin (2011) and Creswell (2010) the documentary research can be used as a source of field information, whether through public document (e.g. newspapers, websites, official reports) or private (e.g. e-mails, meeting minutes, internal manuals). In addition, the documentary research provides information on issues which are not easily observed in the field (Patton 2002). It was used the internal documents from the investigated universities, more specifically the curriculums that are presented on websites over the analyzed courses, which enabled us to investigate how the offered disciplines are oriented to sustainability, especially considering an interdisciplinary character.

For the documentary analysis was used the content analysis method. Bardin (2009) defines content analysis as a research technique that uses an objective description and systematic quantitative content originated by the communication, aiming the interpretation of communications. The research is classified as descriptive, and it aims to describe substantial characteristics of a phenomenon under a study by means of recorded data in a systematic way (Bervian et al. 2002).

After analyzing the list of disciplines in the excellence Business Administration programs, the majority of cases the number of hours for each discipline, and the total hours of the program, the total number of hours was calculated for the disciplines that include the theme sustainability in relation to the complete program. This calculation resulted in an index that classifies the institutions according to the number of hours for disciplines on the theme sustainability based on the total number of hours in the program. The results are analyzed and presented below.

Results and analyses

The information presented in this section shows how the undergraduate programs, considered to be the best in Brazil according to the criteria used by the CPC index, are incorporating the theme sustainable development into their programs. The purpose was to determine whether or not the programs with the highest scores, which means they strive to improve their infrastructure and offer better working conditions for faculty and a better learning environment for students, also seek to develop the theme sustainability in their curriculums as a part of the student's education.

As a general rule, in relation to the proportion of these HLI programs in Brazil, findings show that there is a lack of programs of excellence in the North and Northeast regions. This contrasts with the southeast region which has the greatest concentration of Business Administration programs of excellence (63 % of the total), wherein 33 % of the programs are offered in the public HLIs and 67 % in private HLIs. In the ranking

of the Business Administration programs of excellence, the southern region appears in second place with 29 % of the total (where 75 % of the programs are public and 25 % private). The analysis also reveals that of the Business Administration programs of excellence offered by HLIs in the mid-west region, none are offered by public institutions (as the same in North and Northeast), in other words, all the programs found are offered by private HLIs.

The research data reveal that of the 24 undergraduate programs in Business Administration considered of excellence, 16 (67 %) have disciplines related to sustainable development in their programs, being that 5 (31 %) of these courses are public and 11 (69 %) private. It means that 8 of the programs (33 %) have no disciplines related to the theme in their programs. If it considered the 24 courses, 16 (67 %) are offered in private HLIs and 8 (33 %) in public institutions. These factors reveal that more than half of the programs that are considered of excellence are private, but only 69 % of these have disciplines related to sustainable development (as shown on Table 2).

In the 16 undergraduate programs in Business Administration researched that present disciplines related to sustainable development in their programs, 25 disciplines related to the theme sustainability were found (the representation by region of the country is shown in Table 3). The large majority of HLIs offer one or two disciplines on the theme, in total there are 15 HLI (94 % of the programs). Only one HLI (6 %) offer three or more disciplines on the theme sustainability.

In a study carried out by Palma et al. (2011), the authors analyzed forty Federal Universities in Brazil that offered bachelor degree in administration, among them 33 % offer disciplines on sustainability. When analyzing the best Business Administration programs in Brazil, we found that this percentage increased to 67 %. This indicates that in the best programs that concern with the theme sustainable development is also greater. Regarding the number of hours dedicated to the theme in the best institutions, the number of hours dedicated was roughly 10 % of the total program hours, in contrast with the study by Palma et al. (2011), where this index was less than 2 %.

After defining the courses that offer subjects related to the theme of sustainability, we conducted a search on the website of universities, and also solicited by email the contents of these disciplines, in order to observe the focus given in each of these courses. Therefore, only four courses provide the content of the disciplines linked to sustainability, which is 25 % of the total of courses observed. Although there are evidences of the search for a debate and reflection on environmental issues by these universities, it is still scarce to consolidating a base of knowledge necessary for effective and efficient performance by the future managers. This base should be encouraged through a critical and purposeful reflection, because it is necessary to discuss the inclusion of social, economic and environmental dimensions in organizational life as a whole, with regard to production, operations, sales, customer relations, and so on, in order to contribute to competitiveness of companies and social development.

The analyzed courses develop disciplines related to issues such as environmental ethics, environmental and organizational responsibility for the practice of economic development based on sustainability. These themes are developed through seminars, reading and discussion of sustainability practical issues, encouraging students to research topics related to sustainability and remain the current concerning about this theme. These

Table 2 HLI, type, region of Brazil, discipline, in the Business Administration programs of excellence in Brazil

Acronym	Name	Type	Region	Discipline
UFSCAR	UNIVERSIDADE FEDERAL DE SÃO CARLOS	Public	Southeast	Sustainability management and third sector
UNIFEV	CENTRO UNIVERSITÁRIO DE VOTUPORANGA	Private	Southeast	Social and environmental responsibility Environmental management and sustainable development
UNIP	UNIVERSIDADE PAULISTA	Private	Southeast	Social responsibility Environmental education
UNIP	UNIVERSIDADE PAULISTA	Private	North	Social responsibility Environmental education
UNIP	UNIVERSIDADE PAULISTA	Private	Midwest	Social responsibility Environmental education
UNIP	UNIVERSIDADE PAULISTA	Private	Midwest	Social responsibility Environmental education
UFJF	UNIVERSIDADE FEDERAL DE JUIZ DE FORA	Public	Southeast	Environmental management and sustainability
UFRGS	UNIVERSIDADE FEDERAL DO RIO GRANDE DO SUL	Public	South	Social and environmental management in companies Workshop IV: social management and development
UFLA	UNIVERSIDADE FEDERAL DE LAVRAS	Public	Southeast	Management and environment Social and environmental management Management and social responsibility Socio-cultural aspects of environmental licensing
IBMEC	FACULDADE DE ECONOMIA E FINANÇAS IBMEC	Private	Southeast	Corporate governance and sustainability
UNICENTRO	UNIVERSIDADE ESTADUAL DO CENTRO OESTE	Public	South	Social and environmental management
MULTIVIX VITÓRIA	FACULDADE BRASILEIRA	Private	Southeast	Environmental management and social responsibility
UNI-RN	CENTRO UNIVERSITÁRIO DO RIO GRANDE DO NORTE	Private	Northeast	Philosophy and social responsibility
MULTIVIX SERRA	FACULDADE CAPIXABA DA SERRA	Private	Southeast	Environmental management and social responsibility
EBAPE	ESCOLA BRASILEIRA DE ADMINISTRAÇÃO PÚBLICA E DE EMPRESAS	Private	Southeast	Policies and environmental management
CESUCA	FACULDADE INEDI	Private	South	Environmental management and social responsibility

Source: Elaborated by the authors

Table 3 Brazilian Business Administration programs of excellence with disciplines related to sustainable development by region

Region in Brazil	Number of programs	Number of disciplines
South	3	4
Southeast	9	14
Midwest	2	4
Northeast	1	1
North	1	2

Source: Elaborated by the authors

issues are in agreement with what is mentioned by Lopez (2013) in asserting to prior knowledge builds a foundation for the future development of the action, which it is also highlighted by Yuan (2001), when asserting by assigning to the university this responsibility, since its function is to promote the quality and development of society.

At the year 2010 which was presented in the study on the Federal Universities in Brazil by Palma et al. (2011), in relation to the institutions analyzed, 33 % undergraduate offered programs on the theme sustainability, when comparing the data presented with those of the study at hand, this percentage increases to 67 %. Still, in comparison to the study carried out by Palma et al. (2011), the Federal University of Lavras (UFLA) went from one to four disciplines on the theme sustainability. This is a public institution in the southeastern region whose total program hours for all disciplines offered (total of 204 h) corresponds to 10 % of the total program hours for the Business Administration program.

Of the 16 Business Administration programs of excellence that offer disciplines on sustainability, only one program (Universidade Paulista—UNIP) works specifically with the issue of environmental education, the other programs offer disciplines focusing more on the social responsibility theme, going beyond of the environmental perspective. An index was created to match the number of total program hours and the number of total hours for disciplines offered on the theme sustainability.

Regarding the semester in which the disciplines are offered, it was found that in the majority of programs, the disciplines on the theme sustainability are offered starting in the second half of the program, mostly in the last few semesters of the program. It is worthy to note that there were programs that also had disciplines related to alternative forms of organization, such as cooperatives. Some of these disciplines include: Administration of Solidarity Enterprises; Constituting Cooperatives and the Management of Cooperatives.

With respect to 52 Brazilian universities that signed the Talloires Declaration (available at http://www.ulsf.org/programs_talloires_signatories.html#Brazil) only 2 (two) are among the programs of excellence in Business Administration and offer disciplines related to the theme. They are the Universidade Federal de São Carlos and Universidade Federal do Rio Grande do Sul, all of which are public universities.

Based on the presented issues, it is clear that the theme of sustainability has a lot to develop in the higher education courses, not only about excellence, but also in a generic way. There are a demand of structured disciplines that dialogue with the student's reality and other fields of knowledge. Such a question can develop through the effective presence of the professor in the classroom through case studies and debate with the students. This issues corroborates with Savelyeva and McKenna (2011) when defend that the emphasis of the academy on a curriculum based on student satisfaction and learning outcomes rather than the development of new research, teaching techniques, and especially the ethical debate in management.

Incorporating the sustainability theme into the higher education curriculum requires effort and integrated participation between universities, organizations and society, because with effective actions between these actors can change not only the way of professionals think and work (De Ciurana and Filho 2006), but engage discussions that students can reflect on the practice of the profession enhancing actual results for future

generations (Stephens et al. 2008). Looking forward to present a model for analyzing business schools as creators, disseminators and supporters of knowledge on environmental management, Jabbour (2010) asserts that teaching, research and community outreach activities related to sustainability are fundamental for this type of school, to the extent that they seek to disseminate knowledge on sustainability. Therefore, teaching about sustainability should involve issues beyond the boundaries of the classroom, effectively involving the theory with practice, whereas an effective practical change needs to involve different stakeholders located in the same context.

Conclusion

Considering the data analyzed, there is a greater number of HLIs with Business Administration programs of excellence in the South and Southeast regions, while the data shows a contrast with the north and northeast regions. The south and southeast regions also have a greater concentration of Business Administration programs of excellence with disciplines focused on sustainability. This factor might be related to the variations in social and economic development in the different regions of Brazil. Thus, according to data from the IBGE (2015) on the Gross Domestic Product (GDP) of different regions of Brazil in 2011, in the north and northeast, participation in the GDP was 5.4 and 13.4 % respectively, such that the southeastern region stands out for representing 55.4 % followed by the south with 16.2 %.

Considering that 67 % of the HLIs have disciplines on sustainability, it reinforces the need to encourage the inclusion of disciplines on this theme in other academic programs. Furthermore, especially in North, Northeastern and Midwest regions, reinforcing the need for investments in the quality of these programs, based on the classification criteria of the CPC (Enade score, the performance difference rate—IDD and the input variables), as well as how to promote disciplines on the sustainability theme. It is also suggested that research be conducted with HLIs that have different score than 5 on the CPC. And, comparisons might be performed to verify geographical aspects that relate to the provision of discipline on sustainability.

The limitations of this study include the analysis of the list of disciplines available on the website of the institutions studied, and the lack of access to the pedagogical project for each program, as it is a private document, rarely made available by teaching institutions. The analysis of the curriculum content was then based on the disciplines made available on the respective HLI websites. Apart from that, it is known that even if there is not a specific discipline that addresses the issue in question, there are other disciplines in the academic curriculum that can do it. For example, disciplines that address on strategic alliances, relationship with stakeholders and marketing can talk about the issue without being specifically linked the question of sustainability.

Among the main contributions of this study, it is suggested that as part of the academic program for administrators, students get exposed to the theme sustainable development during their undergraduate work, since these individuals will become future managers and their future decisions may have implications in the social–environmental and economic fields. As a suggestion for further research, there is a need for more empirical studies that discuss the education of administrators in Brazil looking at the social, environmental and economic aspects of sustainable development.

Authors' contributions

MLL, SV, MVPC and ARWT carried out the literature review and survey data as the analysis. All authors read and approved the final manuscript.

Competing interests

The authors declare that they have no competing interests.

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