

Challenges for education for sustainability in business courses

A multicase study in Brazilian higher education institutions

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Abstract

Purpose – This paper aims to analyze the main challenges faced by two business schools and a higher education institution when implementing education for sustainability (EfS). Also, it seeks to identify facilitating elements that contribute to minimizing or eliminating barriers faced by these institutions when implementing EfS.

Design/methodology/approach – A qualitative research approach is used of a descriptive nature and a multicase study is used as research strategy. Data were collected through interviews with the individuals responsible for EfS process in the institutions studied and were analyzed by the content analysis technique.

Findings – The data allowed identifying new challenges, such as those related to the governance of educational institutions, as well as divergent values of higher education institutions (HEIs) and of EfS.

Research limitations/implications – The number of cases here analyzed does not allow generalization of the results.

Practical implications – The discussion of the empirical data with the literature has provided some insights regarding good practices and recommendations for educational institutions to minimize the challenges faced in EfS process.

Originality/value – The identification of facilitating elements to mitigate challenges faced by business schools and HEIs provide insights for other institutions who long for implementing EfS. Also, the lack of actions aimed at mitigating resource-related challenges shows the need to improve educational public policies to help embed EfS in HEIs and business schools.

Keywords Education for sustainability, Higher education, Challenges

Paper type Research paper

Introduction

The demand to form business leaders concerned with sustainability issues (Bonn and Fisher, 2011) has led higher education institutions (HEIs) to concern for the development of skills geared to the social, environmental and economic dimensions of their students, who will become future business leaders (Menezes and Minillo, 2017). In this context lies the so-called education for sustainability (EfS), which consists in a:

[...] learning that empowers all to make decisions contemplating the environmental society, economic viability and a fair society for present and future generations, at the same time as there is respect towards cultural diversity (UNESCO, 2017).

Initiatives, such as the principles for responsible management education (PRME), the Aspen Institute (2012) and net impact (Barber *et al.*, 2014), were created to guide HEIs on how to implement education for Responsible management (RM), which includes sustainability,



responsibility and ethics. However, even though these principles guide HEIs on EfS implementation (Jacobi *et al.*, 2011) – which encompasses the RM questions – they still face difficulties in implementing it, because it demands radical changes in teaching, research and extension (Barber *et al.*, 2014) of educational institutions.

In this scenario, this research aims to analyze what are the main challenges that business schools and a Brazilian university have to deal with when implementing EfS. In addition, it also seeks to identify, as a specific objective, facilitating elements that help the analyzed business schools and universities to minimize or eliminate these barriers and to put into action plans directed to EfS. In this context, it is possible to identify in the literature of this research domain, challenges of various natures that occur before and during the implementation process of EfS. Also, it is possible to observe facilitating elements that contribute to mitigate these challenges.

Thus, it is expected that this study will contribute theoretically to the literature of this research domain, from the identification of challenges and facilitators to overcome them, in the process of EfS implementation. The practical contribution of this research lies in the fact that identifying these difficulties and facilitating elements can generate insights for business schools and universities that wish to implement EfS, contemplating actions and practices that are necessary for an effective planning and execution of EfS. Such insights can contribute to these educational institutions so that they can anticipate the difficulties inherent in the process and consider facilitators as key elements in mitigating the challenges of EfS from its planning to its implementation. Also, it is expected that empirical data here presented shows what types of challenges are better addressed by business schools and HEIs, and what type of challenges demand more effort when it comes to facilitating elements that will contribute to overcome them.

Education for sustainability and challenges for its implementation

In the context of the highly dynamic society in which we live and in which individuals, especially business leaders, have to deal with issues related to sustainability, HEIs play an important role in the formation of such individuals. HEIs have a certain obligation to promote critical thinking in students, when it comes to dealing with problems faced by the society of which they are part (Fullan and Scott, 2009).

In this scenario, for Wals and Jickling (2002), some of these problems consist of issues related to sustainability, such as climate change, poverty, global wealth and women marginalization, among others. Thus, HEIs have a responsibility to ensure the learning of their students so that they develop critical and reflexive thoughts to deal with such issues by becoming business leaders or collaborators of the organizations of which they will be part in the future.

However, for EfS to be effectively inserted in HEIs, institutional strategies, curricular changes, teaching and learning practices, professional associations are needed, as well as considering the campus as a teaching laboratory (Pedersen, 2017). These actions often require overcoming challenges to be fully or partially implemented.

These challenges faced by HEIs for EfS implementation can be of several natures, being divided in this study into cultural, training of change agents, institutional, curricular structure, methodologies and teaching approaches, resources, measurement of EfS efforts and others.

Undoubtedly, other divisions may be suggested, and in any case, there are no distinct boundaries between the classifications here outlined. Such a division was used here only to make the presentation of the literature clearer.

The challenges related to the *culture of change agents* consist in their resistance to working disciplines in an interdisciplinary way and in the lack of their familiarization with the concept of sustainability and of EfS. In this context, [Palma et al. \(2013\)](#) developed a research aimed at understanding how issues related to EfS are being addressed at the Federal Institute of Education, Science and Technology of Rio Grande do Sul. They observed “few effective actions proposed in the pedagogical projects of management courses” and attributed this to the resistance to change of educational agents. The authors attribute this cultural challenge to the lack of successful actions already implemented, to be used as a reference. Another cultural challenge was identified by [Gale et al. \(2015\)](#), the tendency of HEIs to want to rationalize all things.

With regard to the *training of change agents* of EfS, [Palma et al. \(2013\)](#) identified the lack of knowledge or consensus on the part of teachers about what sustainability is. This highlights the need to promote training for change agents to engage them and raise awareness about the importance of EfS in the teaching-learning process of students in management courses. The authors also highlighted the need to train educators – in agreement with [Venhulst and Lambrechts \(2015\)](#) – to work sustainability in an interdisciplinary way, adapting the curriculum of the disciplines they teach. [Gonçalves-Dias et al. \(2013\)](#) point out the importance of partnership networks to help mitigate such challenge, from the holding of symposia and workshops to exchange experiences among teachers.

Regarding the challenges for EfS of an *institutional* nature, [Palma et al. \(2013\)](#) identified the absence of an institutional policy focused on the insertion of sustainability in campuses. [Figueiredo and Tsarenko \(2013\)](#), [Velazquez et al. \(2005\)](#) and [Blanco-Portela et al. \(2018\)](#) also point to the lack of support from high-level people of HEIs as a challenge to be mitigated in EfS implementation. Also, [Jacobi et al. \(2011\)](#) and [Naeem and Peach \(2011\)](#) have shown that often the inclusion of the sustainability theme in specific disciplines ends up occurring “from individual teachers’ initiatives, little articulated with the institutional whole” ([Jacobi et al., 2011](#), p. 39). This may make it difficult to obtain financial funding and investments, especially in educational institutions where sustainability is seen as secondary or tertiary and is not a priority in education ([Figueiredo and Tsarenko, 2013](#); [Velazquez et al., 2005](#)).

Also related to the institutional aspect, [Blanco-Portela et al. \(2018\)](#) identified as a barrier to EfS, the lack of recognition about the importance of its institutionalization, which ends up making it difficult to allocate resources for this matter. Although the support offered by university leaders is important for a successful implementation of EfS in HEIs, the involvement and interest of educators and students is also a challenge faced by universities that aim to include sustainability in their curricula, methodologies and research ([Blanco-Portela et al., 2018](#)). In this context, it is necessary to rethink the curricular structure used to involve the students of management courses in the co-creation of teaching plans and as a central element in the pedagogical approaches to EfS ([Czykiel et al., 2015](#)).

Also, regarding challenges related to *teaching methodologies and approaches*, studies such as those by [MacVaugh and Norton \(2012\)](#) point out that students of management courses affirm that a lot of focus is given to environmental problems and global responsibility only in a theoretical way. [Benn and Rusinko \(2011\)](#) suggest that one of the ways to mitigate such challenge is mainly to narrow the relationship between university and businesses, so that there is greater engagement between the parties. One of the possibilities for this narrowing is taking students to the workplace of business leaders; thus, students will have practical experience in real work situations. This can contribute to the practical application of their theoretical knowledge ([Hourneaux-Junior and Caldana, 2017](#)).

In addition to the above-mentioned challenges, the lack of *resources* (human, financial and material) needed to develop transdisciplinary initiatives and experiential learning is also barriers to EfS identified in the literature (Cowell *et al.*, 1998). Teaching tools, such as business games, consist of an alternative to develop critical and reflective thinking in students, not requiring additional financial resources such as those required for experiential learning, for example (Motta *et al.*, 2012).

Authors such as Cebrián (2016) and Shephard *et al.* (2015) also point to the difficulty of *measuring* whether *efforts for EfS* are generating positive results. For Cebrián (2016), a facilitator to mitigate such a challenge consists of benchmarking in other universities, with the intention of identifying good practices and bringing them to the educational institution that wants to evaluate EfS's efforts. Also, contact with partners who will act as critical contributors to the implementation process of EfS – the so called “critical friends” – is a facilitating element for EfS assessment.

Other challenges to EfS are evident in the literature of this research domain, such as the lack of long-term planning, the lack of involvement of students in extracurricular activities and the social, economic and political context of the country in which the HEI is located (Blanco-Portela *et al.*, 2018). Benn and Rusinko (2011) also point out as a challenge, the need to identify the demands of stakeholders of the educational institutions, regarding the skills and competencies of the professionals that will enter the market in the future. To identify such demands, one must overcome the challenge of lacking information about the actual needs and expectations of business leaders as well as of students on sustainability issues (Benn and Rusinko, 2011).

Also, from the case evidenced in Pedersen (2017) study, the author noted the importance of allocating attention and resources not only to those who are not yet involved with EfS but also to those who already are. This may contribute to the maintenance of EfS, because it is a process that must be continued.

Methodology

The present research has a qualitative approach, because it aims at discussing, as suggested by Merriam (2009), the phenomenon studied from the interpretations of the interviewee, that is the world view of a person directly involved with the theme chosen for the study. It has a descriptive nature, because the researchers did not interfere on the facts only performed its registration, analysis, classification and interpretation (Raupp and Beuren, 2003). The research strategy used was the multiple case study because, as Yin (2015) recommends, this strategy is adequate to analyze in depth complex phenomena, as is the case of this research (challenges faced by HEIs in EfS process).

The selection criteria of the cases here analyzed were non-random, intentional and because of accessibility (Eisenhardt, 1989). In addition, the cases analyzed here should have had formalized practices of EfS to make its analysis feasible, as well as possible to identify challenges faced in EfS implementation. The education institutions here analyzed were as follows:

- the Faculty of Management and Business (FAGEN) of the Federal University of Uberlândia (UFU);
- the Faculty of Economics, Administration and Accounting of Ribeirão Preto (FEA-RP) of the State University of São Paulo (USP); and
- the Methodist University of São Paulo, here identified by U.M.

Thus, two business schools (FAGEN and FEA-RP) and one university (U.M.) located in the southeast of Brazil were analyzed. The empirical data evidenced the need to extend the

analysis of the business school of the Methodist University to the institution as a whole, because of the institutional and transversal nature of EfS in that university, permeating all its courses and not only its management courses.

Data were collected from websites of the education institutions, from Institutional Pedagogical Projects (IPP's) and from semi-structured interviews with one participant from each institution, responsible for EfS practices. Each interview lasted approximately 1 h. The interviews were carried out from November 2018 to May 2019. All interviews were recorded, with the consent of the participants, and later transcribed. The data collected were analyzed by the content analysis technique suggested by [Bardin \(2016\)](#), consisting in:

- Pre-analysis, in which the “floating reading” of the literature was carried out, contributing to familiarize the researchers with studies of the research domain.
- Material exploitation, which allowed the identification of the categories and elements of analysis prior to data collection.
- Treatment and interpretation of the data collected, based on the “conversation” between the theoretical basis presented and the empirical data.

The categories of analysis defined *a priori* to data collection consisted of the various types of challenges identified in the theoretical basis of this study, and the codes or elements of analysis, in the challenges themselves, according to [Table I](#).

The empirical data evidenced an emerging subcategory, consisting of challenges of not present in the theoretical basis of this research, that is challenges related to the governance of the educational institutions. These challenges were classified in the Institution category and three of them were identified: lack of adequate methodologies and approaches for EfS, HEI's strategy (distant from the top-down one) and difficulties to strengthen relationships with stakeholders.

The validity of the construct can be obtained in case studies by data triangulation, as pointed by [Yin \(2015\)](#). Data triangulation was obtained by the use of multiple sources of data collection, because information from websites from the HEIs was used, as well as the IPP's were analyzed and semi-structured interviews were held.

To assure the internal validity of the research, a patten combination was held. This logic, as signalized by [Trochim \(1989\)](#) and [Yin \(2015\)](#) lies in comparing a pattern based on the evidences of the research with a pattern defined *a priori* to data collection. This comparison was held in this research, from grouping the challenges identified in empirical data in categories, that is types of challenges, identified in the literature available this research domain. The main objective of this paper, that is to identify challenges and facilitators to overcome them, in the process of EfS implementation, contributes to the logic of replication demanded to assure the research's external validity ([Yin, 2015](#)). It contributes to define the breadth of the findings of this research, signalizing the possibility of replicating the logic used in this research to studies with similar research objectives.

Also, the reliability of the research is assured by the use of the multicase study protocol, which consists in, as pointed by [Yin \(2015\)](#). The protocol here used comprises a semi-structured interview script, in which the interviewers were questioned regarding the EfS actions and practices held in HEIs, as well as the challenges they face to implement them as facilitating elements to help mitigate such challenges. Also, as recommended by [Yin \(2015\)](#), the research was held

- in a transparent way;
- the research was developed methodically; and
- with loyalty to the evidences.

Category	Code/element of analysis	Author(s)
Cultural	Tendency of HEIs to rationalize all things	Gale <i>et al.</i> (2015)
Training of change agents	Resistance to change	Palma <i>et al.</i> (2013); Gonçalves-Dias <i>et al.</i> (2013)
	Lack of knowledge on the concept of sustainability	
	Lack of consensus regarding the concept of sustainability	
Institutional	Teaching disciplines in a non-interdisciplinary way	
	Lack of institutional policy for EfS	Palma <i>et al.</i> (2013)
	Lack of support from director and deans	Figueiredo and Tsarenko (2013), Velazquez <i>et al.</i> (2005) e Blanco-Portela <i>et al.</i> (2018)
Curricular structure	Non-prioritization of EfS	Blanco-Portela <i>et al.</i> (2018)
	Isolated initiatives, little articulated with the institutional whole	Jacobi <i>et al.</i> (2011), Naeem and Peach (2011)
Teaching methodologies and approaches	Lack of student and teachers' engagement	Blanco-Portela <i>et al.</i> (2018)
Resources	Teaching in a theoretical way	MacVaugh and Norton (2012)
Measurement of efforts for EfS	Lack of resources	Cowell <i>et al.</i> (1998)
Others	Difficulty to measure EfS efforts	Cebrián (2016), Shephard <i>et al.</i> (2015)
	Lack of long-term planning	Blanco-Portela <i>et al.</i> (2018)
	Social, economic and political context of the country	
	Identification of stakeholders' expectations	Benn and Rusinko (2011)
	Resource allocated only to those not yet involved with EfS	Pedersen (2017)

Source: Elaborated by the authors (2019)

Table I.
Categories and codes
(elements of analysis)
defined *a priori* to
data collection

Cases' presentation and analysis

A brief explanation of the business schools and of the university here analyzed, as well as of its EfS practices is presented. Next, empirical data and its analysis are presented.

Business school from University of Uberlândia (Faculty of Management and Business)

The courses offered by the business school located at the Federal University of Uberlândia (MG) are Information Management and Administration.

FAGEN began its process of implementing EfS formally in 2014, when the school became a signatory of PRME. The affiliation to the initiative allowed the business school to identify the need to implement EfS in the teaching of management courses, because there were, until then, EfS practices only in research and extension activities of these courses. Thus, although there are no compulsory subjects contemplating sustainability in the business school, change agents were able to insert some optional subjects in the business school's courses. As FAGEN's interviewee points out, "compulsory (subjects), for example, there are none. So, students that focus on optional finance disciplines, he is a professional that does not learn sustainability-related disciplines".

For the interviewee, one of the main barriers to this is that there is no teacher adherence to the theme. This challenge is in line with Blanco-Portela *et al.* (2018), which point out the

lack of involvement and interest of educators as a barrier to be transposed to the implementation of EfS in business schools.

The non-adherence of teachers to the theme of sustainability also makes initiatives for EfS be the result of isolated actions of some teachers who have more adherence to the theme. Such evidence is in line with [Jacobi et al. \(2011\)](#) and [Naeem and Peach \(2011\)](#) who affirm that the existence of isolated initiatives, little linked to the institutional whole is a challenge commonly faced by educational institutions that seek to implement EfS.

This is another challenge to the implementation of EfS in the business school, because the role of transforming agent is concentrated in some teachers who have previous experiences with the sustainability theme or have a profile that is more adherent to the theme, as is the case of FAGEN's interviewee:

Since I lived abroad, when I went to University X to study during my doctoral course [...]. University X is a university that is very respected in terms of its campus, there is a lot of recycling, there is a lot of respect for diversity, and this was in 2011, so [...] there was already a very conducive environment for the issues being discussed here today. So the time you arrive in a still raw environment, let's put it this way, there you feel the need for you to be the transforming agent, you know? (FAGEN Interviewee).

Thus, for the interviewee, "the main barrier is the conviction of the community in general, but mainly of the teachers, of the need to teach by project, and not to teach by discipline [...].". This shows a teaching culture focused on disciplines and not on interdisciplinarity, which is a more appropriate approach to sustainability issues' teaching.

From the interviewee's speech, it was also possible to verify the lack of understanding of business school employees about the concept of sustainability: "It's difficult because people do not understand it, they think it's (only) environmental [...]." This evidence corroborates [Palma et al. \(2013\)](#) who identified in their study the lack of knowledge or consensus on the part of teachers on sustainability's concept.

For the interviewee, besides having a misconception on the concept of sustainability, some employees think that the insertion of the theme in the curricular structure of the courses is an attempt to "facilitate the course." This leads the business school to face another challenge to implement EfS: employee resilience. These evidences are in agreement with the one identified in the study by [Palma et al. \(2013, p. 112\)](#), because they observed, "few effective actions proposed in the pedagogical projects of management courses," because of resistance to change.

One of the ways to mitigate such challenge consists in narrowing relationships with other HEIs who have already implemented EfS successful actions already implemented ([Palma et al., 2013](#)). However, the business school faces difficulties in developing closer relationships with other institutions or stakeholders.

We have a hard time making partnerships with private companies [...] the university does not accept private financing, or uses logos from private companies, or corporate images inside the campus or attached to projects connected to the campus, (also) it is difficult to establish relationships with the city hall because its management is not flexible at all (FAGEN Interviewee).

It is evident from the excerpt that the difficulty of developing partnerships is because of the governance of the business school.

For the interviewee, the non-prioritization of EfS is another challenge for its implementation. This evidence is in line with [Figueiredo and Tsarenko \(2013\)](#) and [Velazquez et al. \(2005\)](#), who assert that the non-prioritization of EfS makes it difficult to obtain resources and financing to promote practices and actions toward EfS.

Another challenge for EfS in the business school consists in the teaching methodologies used for technical subjects. According to the interviewee, disciplines are still very technical and do not occur in an interdisciplinary way. This evidence goes against [Venhulst and Lambrechts \(2015\)](#), who point out interdisciplinarity as a necessary approach to work on the subject of sustainability in management courses.

In addition to the challenges previously mentioned, another challenge that FAGEN faces is related to the values of the business school. According to the interviewee, universities that can implement EfS actions more easily, either have budget to guide such actions or have a strong focus on sustainability. According to FAGEN interviewee,

We are neither of those two things [...] So our focus is more on Finances, and we are not private. So at the end [...] we have a weakened structure to focus on EfS process.

Although there are several challenges for the implementation of EfS, the interviewee affirms that having close relationships with the heads of some other educational institutions contributes to the permanence of the business school in initiatives such as PRME, as well as for the maintenance of practices for EfS in FAGEN.

Business school from University of São Paulo (Faculty of Economics, Administration and Accounting of Ribeirão Preto)

The business school is located in the southeast region of Brazil and has currently three undergraduate and postgraduate courses: Administration, Economics and Accounting. FEA-RP is linked to the State USP.

Even though the concern for EfS was formalized from the institution's affiliation with PRME in 2012, EfS initiatives date before that. EfS initiatives were already carried out in the Institution, and, although in an isolated way, contemplated the concern of teachers, both in teaching and in research, for the theme. In FEA-RP, it is observed that EfS is developed through actions such as: narrowing relationships with companies, training provided to students for the development of skills for sustainability, events geared for both undergraduate and graduate students, calls for the publication of scientific articles, the search for researchers from abroad to hold lectures and workshops at the institution, the existence of a sustainability office and the articulation with other institutions, through joint research and events, as well as the exchange of information and experience.

One of the major challenges faced by many business schools is the identification of stakeholder demands about the professional profile they expect HEIs and business schools to form ([Benn and Rusinko, 2011](#)). FEA-RP overcomes this challenge by narrowing relationships with companies, who show them the profile they expect of business leaders. In addition to closer relationships with companies, proximity to the Global Compact also contributes to identifying the stakeholders' demands, such as the ones of businesses that are in the job market.

Another challenge evidenced in the literature ([Blanco-Portela et al., 2018](#)) and that the business school was able to overcome is the lack of student involvement in EfS practices. According to the interviewee, this barrier was mitigated because of the fact that:

Our students are our great differential [...] I think the test they have to take to enter UPS ends up doing a very good screening in relation to some of the skills (with which) the students arrive in the university [...] the students already come with these new principles of education, with new values (FEA-RP Interviewee).

This evidence is in line with [Blanco-Portela et al. \(2018\)](#) who point out the importance of the involvement of students in the implementation of EfS. Thus, in the case of FEA-RP, it is

observed that the facilitator element to overcome this challenge is the profile of the student who joins the educational institution to which the business school is linked.

Despite having this facilitator for EfS, it is possible to observe that the governance of USP, which does not operate as top-down as other universities, is a challenge with which FEA-RP has to implement actions for EfS.

Also in the speech of the interviewee of the business school, it is evident that a great challenge still consists in the lack of engagement of the researcher teachers in EfS practices and actions.

It's a difficulty of public universities: to engage teachers. It is much easier for me today, as coordinator of the sustainability office of FEA-RP, to work with such subjects, these themes (sustainability-related), within my disciplines (FEA-RP interviewee).

This makes the initiatives aimed at EfS stand alone, making the pace of EfS's development "slower." As evidenced by FAGEN's empirical data, these evidences also agree with [Jacobi et al. \(2011, p. 39\)](#), who affirm that the lack of teacher engagement often contributes to the reformulation of the curricular structure occurring "from individual teachers' initiatives, which are little articulated with the institutional whole."

With regards to teaching methodologies toward EfS, the empirical data show that the disciplines are not developed, in most cases, in an interdisciplinary way, as [Venhust and Lambrechts \(2015\)](#) recommend.

In FEA-RP's case, the interviewee attributes the absence of more appropriate teaching methodologies for EfS to the characteristic of the HEI to be an institution that focuses mainly on research.

Thus, also in this case, USP's governance acts as a barrier for the implementation of differentiated methodologies for sustainability teaching.

Also related to teaching methodologies for sustainability, another challenge that FEA-RP faces is the lack of knowledge of teachers about how to develop disciplines related to sustainability. According to [Palma et al. \(2013\)](#) and [Venhust and Lambrechts \(2015\)](#), there is a need to teach sustainability in an interdisciplinary way, adapting the curriculum of disciplines that discuss the theme. FEA-RP sought to mitigate this challenge with actions such as the offer of external speakers or staff of the sustainability office, specialized in the subject, to teach classes in the disciplines of teachers who were unfamiliar with the sustainability theme. This action is in line with [Gonçalves-Dias et al. \(2013\)](#), who point out the importance of partnership networks, the holding of symposia, events and workshops for the exchange of experiences among teachers who are not familiar with methodologies and approaches to teach sustainability.

Another challenge evidenced in the literature ([Cebrián, 2016](#); [Shephard et al., 2015](#)) is the difficulty of evaluating practices for EfS. As recommended by the literature ([Cebrián, 2016](#)), FEA-RP works alongside "critical friends," who in this case are represented by a board of external executives who are in the job market and who give ideas and suggestions for improvements in business school courses, considering job market's perspective. Nevertheless, the interviewee points out the need to "greatly mature this impact assessment" of FEA-RP's EfS actions.

Not only is the participation of "critical friends" a facilitator for overcoming challenges to the implementation of EfS in FEA-RP but also the concern of the board of directors for themes related to sustainability. This makes institutional support for EfS practices present, agreeing with [Figueiredo and Tsarenko \(2013\)](#), [Velazquez et al. \(2005\)](#) and [Blanco-Portela et al. \(2018\)](#) who highlight the support of high-ranking university

collaborators as a common challenge to be overcome by education institutions wishing to implement EfS.

Methodist University of São Paulo

The HEI became a university in 1997. Currently, the Methodist U.M. has 34 undergraduate courses and 24 undergraduate courses in face-to-face modality ([Universidade Metodista de São Paulo, 2019](#)).

The implementation and institutionalization of EfS in the university began in 2008, when the IPP was reformulated, with the insertion of sustainability as one of the transversal values of the university.

Among the practices of EfS developed, the interviewee of the Methodist University emphasizes that the insertion of sustainability in the curriculum was handled in a transversal way and not only in one or more disciplines. For this, the concept of sustainability was defined and they worked alongside more than 200 university teachers to develop, jointly, ways of teaching sustainability in the disciplines.

During EfS implementation, according to the interviewee of U.M., one of the main challenges faced by the HEI was the lack of record of the events and practices that were happening. This was attributed by the interviewee to the lack of human resources to do the records, whereas other people made the practices of EfS happen.

One of the challenges identified in the literature that was evidenced in the process of implementation of EfS in U.M. consists of the resistance ([Palma et al., 2013](#)) of some teachers to the change the way of teaching disciplines and pedagogical approaches to discuss and teach sustainability issues. Those in charge of the sustainability center mapped the disciplines that discussed sustainability and consulted teachers on ideas for integrating sustainability into the courses, in a cross-cutting way. Subsequent to that, they promoted a program aimed at training teachers on methodologies to embed sustainability in the disciplines they would teach. For U.M. interviewee, this attitude, prior consultation with teachers and promotion of the involvement of teachers in the process of institutionalization and transversal implementation of sustainability, was one of the main factors that helped overcome the resistance of some teachers. Such evidence contributes to mitigate the challenge pointed out by [Blanco-Portela et al. \(2018\)](#), regarding the difficulty of involving teachers and students in the process of implementing EfS.

Another element that contributed to the institutionalization of EfS in U.M. was the support of the directors, dean and administrative heads. According to the interviewee, such support is essential for EfS and for [Figueiredo and Tsarenko \(2013\)](#), [Velazquez et al. \(2005\)](#) and [Blanco-Portela et al. \(2018\)](#), it is a challenge commonly faced by business schools that wish to implement actions and practices focused on EfS.

Although U.M. managed to overcome this challenge considered a difficulty by other business schools, such as FAGEN, for example it faced difficulties for the maintenance of EfS.

The interviewee of U.M. attributed this difficulty of maintaining EfS practices to the culture that the society has directed toward goals' achievement. For the interviewee, EfS is something "that should not be achieved since it is a process." For her, the university acts in a way that allows the visualization of goals to be fulfilled, which ended up generating a belief in the university itself that the "goal" to implement EfS had already been achieved. Such evidence corroborates [Pedersen \(2017\)](#) who states that resource allocation should not be made only to those who are not yet involved with EfS but also to those who are already involved in the practices of insertion of sustainability in education. The non-concern with those who are already involved with it can cause the discontinuity of EfS in the institution, as it happened with U.M.

Also, such evidence corroborates [Gale et al. \(2015\)](#) who identified in their study a tendency of HEIs to want to rationalize all things. By wanting to develop EfS from a goal-oriented culture, U.M. ended up following this trend.

Comparative analysis of the cases

From the presented data, it was observed that some challenges for implementing EfS in business courses could be identified in more than one of the institutions here analyzed, whereas others were present in only one of them.

The “lack of student and teachers’ engagement in EfS ([Blanco-Portela et al., 2018](#)) was a challenge identified in FAGEN’s empirical data, as well as in U.M.’s. Such challenge is related to *curricular structures*, because the engagement of teachers and students help rebuild curricular structures, adjusting it to approach sustainability issues adequately. One of the facilitating elements to mitigate such challenge consists in values of the students of the HEIs, such as those of FEA-RP’s students that are aligned with EfS’ values.

Employee resistance to change is a *cultural* challenge that was also identified in empirical data of two of the three institutions here analyzed, FAGEN and U.M. These evidences corroborate [Gale et al. \(2015\)](#) and one of the ways to mitigate such challenge consists in engaging the change agents in EfS actions, as U.M. did.

The non-prioritization of EfS, an *institution*-related challenge, was evidenced in FEA-RP and FAGEN business schools. Also, other institution-related challenges were identified in only one of the cases here presented. In FAGEN, the identified challenges are the lack of knowledge of the concept of sustainability ([Palma et al., 2013](#); [Gonçalves-Dias et al., 2013](#)) and divergent values of the business school when compared to EfS’s values, because of the non-prioritization of EfS ([Figueiredo and Tsarenko, 2013](#); [Velazquez et al., 2005](#) and [Blanco-Portela et al., 2018](#)). Also, the difficulty of the business school to develop partnerships with stakeholders, because of its governance was evident in FAGEN’s empirical data. The prioritization of EfS, through the support of deans and directors, consists in a facilitating element to overcome such challenge, as evidenced in U.M.’s empirical data.

Training of change agents’ related challenges ([Palma et al., 2013](#); [Gonçalves-Dias et al., 2013](#)) was also identified in both business schools here analyzed, FAGEN and FEA-RP. The teaching of disciplines in a non-interdisciplinary way signalizes the need of change agents’ training to use interdisciplinary projects to approach sustainability issues in the disciplines.

The identification of *stakeholders’* needs is a challenge commonly faced by HEIs when implementing EfS ([Benn and Rusinko, 2011](#)); however, FEA-RP mitigates such challenge by partnering with enterprises that help them identify the job market’s demands regarding the competencies and abilities administrators must have when it comes to dealing with sustainability issues.

Resources’ related challenges were evidenced only in U.M., and they concerned the lack of human resources to maintain EfS practices “alive.” This is in line with [Pedersen \(2017\)](#) who point out the need to allocated resources not only to those who are not yet involved with EfS but also to those who already are.

Also, the difficulty to *measure efforts for EfS* is a challenge faced by many HEIs ([Cebrián, 2016](#) and [Shephard et al., 2015](#)). FEA-RP overcomes this challenge through “critical friends” opinions regarding its EfS’ practices. These “critical friends” consist of facilitating elements ([Cebrián, 2016](#)) to mitigate the challenge of measuring efforts for EfS.

[Figure 1](#) illustrates the types of challenges (blue circles, around the central circle) found in the educational institutions analyzed in this research, as well as facilitating elements to overcome challenges for EfS (text boxes).

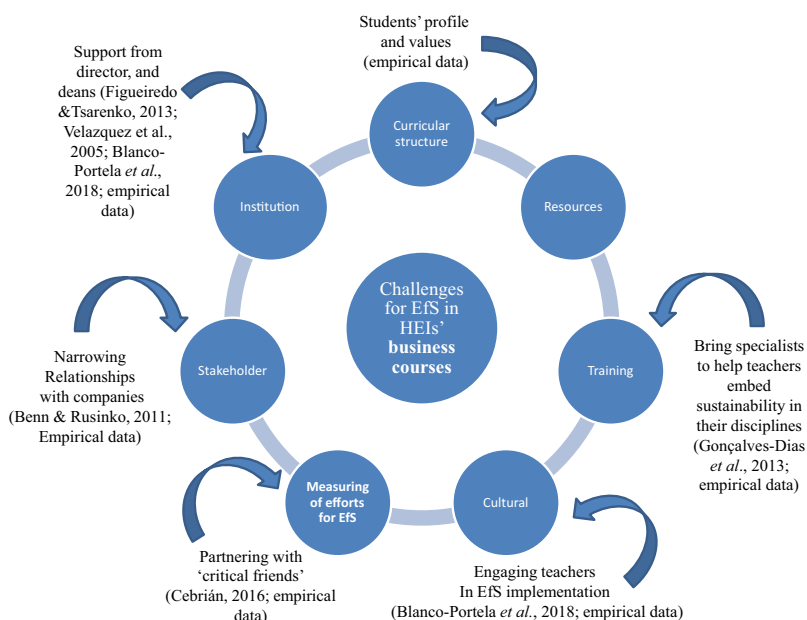
In Figure 1, it can be observed that for all challenges identified in the empirical data, except for those related to “resources,” the institutions here analyzed have developed actions to mitigate them. For the types of challenges related to “curricular structure,” “training of change agents,” “culture,” “institutional” and “stakeholders,” the actions evidenced in the empirical data of the three cases here analyzed are in line with the literature. For the challenge related to “curricular structure,” a facilitating element that contributes to mitigating it in one of the business schools here analyzed (FEA-RP) was observed: the profile and values of the students entering the institution. This element was not evidenced in the theoretical basis of this study, evidencing itself in a facilitating element emergent of this study.

Also, the empirical data collected did not demonstrate actions taken by educational institutions to mitigate “resource” related challenges.

Discussion

From the empirical data of the educational institutions here analyzed, it was evidenced that the support of people of high echelon, evidenced by Figueiredo and Tsarenko (2013), Velazquez *et al.* (2005) and Blanco-Portela *et al.* (2018) as a common challenge to institutions that wish to implement EfS, plays an important role in promoting it. This support was explicitly evidenced in the speeches of the interviewee of the Methodist University and in FEA-RP, implicitly, because EfS happens because of the support of the top management, albeit in a “slower” way.

When this support does not happen, the allocation of administrative and financial resources to EfS becomes a challenge (Cowell *et al.*, 1998) faced by change agent of



Source: Elaborated by the authors (2019), from empirical data

Figure 1.
Types of challenges and facilitating elements to overcome challenges for EfS in business schools and in a HEI

educational institutions, because EfS is not seen as a priority (Figueiredo and Tsarenko, 2013; Velazquez *et al.*, 2005; Blanco-Portela *et al.*, 2018). This fact was evidenced in FAGEN's empirical data, showing that such a barrier leads to other challenges, such as the non-participation of change agents in meetings and events with potential partners, because no resources are allocated for this matter.

However, not only the support of top management but also the involvement of change agents is important to overcome some challenges (Blanco-Portela *et al.*, 2018). In FEA-RP this can be evidenced, because the involvement of the students contributes to curricular structure development, contemplating the sustainability theme.

Another challenge commonly faced by educational institutions, related to EfS, is the identification of stakeholder demands. To mitigate such a challenge, as FEA-RP does and as suggested by Benn and Rusinko (2011), the educational institution can strengthen relationships with former students, currently employees of companies, to identify the current demands on professionals who have to deal with sustainability issues in the job market. In this context, schools that have difficulties in forming partnerships with companies, such as FAGEN, may seek to partner with other institutions to participate in a partnerships network, as suggested by Jacobi *et al.* (2011). Besides, the exchange of experiences with "critical friends" (Cebrián, 2016), even if it occurs in a virtual way, can contribute to the development of EfS.

FEA-RP also faces a challenge related to the institution's governance: the non-adoption of sustainability teaching methodologies that are differentiated from traditional ones because of the fact that HEI is focused primarily on research, not on teaching. In this case, a facilitator to mitigate such a challenge would be to do what the Methodist University did, i.e. create a training program for teachers who will work on sustainability issues in their disciplines. Thus, a mapping of teachers working on this construct in their disciplines could be made, and a committee of specialists could be formed to provide "training" to these teachers, on methodologies and teaching approaches appropriate to sustainability teaching.

This could help teachers become more involved with EfS, helping to minimize other challenges faced by FEA-RP and FAGEN, i.e. lack of teacher engagement and resistance of change agents, respectively. Therefore, by actively participating in EfS development process, teachers would tend to see the importance of EfS and curricular reforms for its promotion.

Also, it is expected that as teachers become more actively involved in EfS, the values for EfS will become more present in the setting of the educational institution. This can contribute, albeit slowly and gradually, to a cultural change in the institution, bringing its values closer to the values of EfS. This, therefore, would contribute, albeit in the long term, to mitigate the challenge faced by FAGEN and other business schools regarding difference in values of the educational institution in relation to EfS values.

It is also important to emphasize the importance of "maintaining" EfS, because it is not a goal to be achieved, but a continuous process. U.M. points out that it was not possible to "see" that EfS practices and actions were vanishing. However, a facilitator that could have contributed to avoid such an occurrence would be the contact with successful actions already implemented, as recommended by Palma *et al.* (2013). Certainly, such actions would demonstrate activities necessary for the maintenance of EfS, which could serve as benchmarking for U.M., ratifying the importance of not acting in isolation, without strengthening relationships with other social actors. The presence of "critical friends" and the partnership with other stakeholders would also contribute to ensuring that the responsibility for evaluating EfS was not fully allocated to U.M. alone. In addition, partnerships with companies, for example would contribute to U.M. realizing that the

demands by professionals who know how to deal with sustainability issues are constant, still present and necessary. This would help the educational institution to see EfS as something to be maintained, continued. Consequently, change agents would no longer rationalize (Gale *et al.*, 2015) EfS, as they would see that it should be a constant priority in the institution. This would also contribute, albeit slowly, to changing the culture of the institution, hitherto focused on achieving goals.

Another point worth mentioning is the absence of actions undertaken by educational institutions to overcome challenges related to “governance” and to the lack of “resources” for EfS. This is because changing the governance of institutions and/or the priority of its projects – impacting on the allocation of resources to EfS – are not easy things to do and require change of priorities, culture, involvement of other spheres such as the government, for example among others. Thus, it is evident the need for alternatives to deal with problems of governance and scarcity of resources by HEIs that seek to implement or maintain EfS.

An alternative that could contribute to mitigating this challenge is the creation of educational public policies that reinforce the need to develop EfS practices in HEIs and business schools, being more emphatic about the insertion of the theme in the curriculum and teaching plans and considering the need for transdisciplinary approaches to its teaching and of methodologies that stimulate critical and reflexive thinking. Such policies could contribute to top-down decisions to consider EfS, as well as to ensure that sustainability teaching and its peculiarities have to be embedded in the pedagogical projects of management courses in these institutions. This would contribute to change agents not relying only on top management and teachers to be in adherent to the theme of sustainability to approach and finance projects related to EfS. Thus, these governmental actions would also contribute to the creation of institutional policies for EfS, in line with Palma *et al.* (2013).

Conclusions

Because EfS proves necessary to form business leaders concerned with sustainability issues, educational institutions are an important catalyst in the process of developing these leaders. However, a number of challenges are faced by these institutions in this process.

The theoretical basis used in this research allowed us to identify challenges related to culture, institution, resources, curricular structure, methodologies and teaching approaches, the measurement of EfS efforts, training of change agents, among others. The empirical data allowed identifying new challenges in the Institution category, related to the governance of educational institutions. Within this category, three challenges were identified:

- lack of appropriate methodologies and approaches to EfS (because of the nature of the educational institution);
- a strategy far from the top-down; and
- difficulties to strengthen relationships with stakeholders.

Such evidence consists of one of the theoretical contributions of this research to the literature on the subject of EfS.

In addition, the empirical data contribute to enrich the literature, because challenges not yet identified in the theoretical basis have been present in the educational institutions here analyzed, such as the existence of divergence of values, when comparing the values for EfS and values of educational institutions. Therefore, it is suggested that future studies be carried out to verify if such challenges are also present in other educational institutions that develop EfS.

The discussion of the empirical data with the literature has provided some insights regarding good practices and recommendations for educational institutions to minimize the challenges faced in EfS process. This is the main practical contribution of this article, because the insights aim to contribute to educational institutions that wish to develop EfS, guiding their actions of planning and execution of EfS. This helps educational institutions anticipate the challenges in its planning, taking actions to mitigate them, avoid them or deal with them in the best possible way. Identifying the facilitating elements to overcome the challenges also contributes to business schools and universities, as they can be used to optimize the implementation of EfS. In this scenario, no facilitating elements were evidenced to deal with governance challenges, within the Institution category and “resources” challenges. Thus, it is recommended that future studies are developed discussing how other educational institutions deal with these types of challenges.

Also, another practical contribution of this research lies in the fact that the findings of this paper can be used by the analyzed HEIs themselves for the advancement of EfS at the institutional level. Institution-related challenges can be more widely addressed by HEIs, because it was observed that some challenges of this category of analysis still lack actions toward its mitigation.

Although it has fulfilled its objective, which was to analyze the challenges, HEIs and business schools face when implementing EfS, as well as to identify facilitators to overcome them, this study has limitations. A limitation of the study consists of the number of educational institutions analyzed, which makes it impossible to generalize the results, as well as the representativeness of the whole universe. Thus, as a future study, it is recommended to evaluate other educational institutions to verify if they face challenges similar to those found in this research, as well as what actions are taken to mitigate them.

It is hoped, therefore, that this research contributes to the literature on this subject, evidencing, from empirical data, the main challenges faced by educational institutions that develop EfS, as well as the actions that are – and can be – taken to overcome them.

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