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Stakeholder engagement in sustainability reporting in higher education: An analysis of key internal stakeholders' expectations

Abstract

Purpose – The purpose of this study is to improve the understanding of stakeholder engagement in the context of sustainability reporting (SR) for higher education institutions (HEIs), together with the materiality principle and stakeholder expectations.

Design/methodology/approach - This research uses an exploratory approach based on content analysis, a case study and descriptive and inferential statistics.

Findings – Three key findings come out of this research: First, the results indicate that HEIs use diverse criteria for grouping stakeholders and that stakeholder engagement is a heterogeneous process. Second, the expectations of internal stakeholders align with the material aspects of SR. Finally, among internal stakeholders, students and academics disagree on the prioritisation of some sustainability aspects, with non-academic staff adopting an intermediate position.

Practical and Social implications – This analysis improves our knowledge of stakeholder engagement in HEIs. It helps to identify the relevant impacts of stakeholder engagement, enhances the quality of reporting and encourages a real dialogue with stakeholders.

Originality/value – The study examines stakeholder engagement and how the materiality principle is adopted by HEIs through SR. Furthermore, it compares these results with stakeholder expectations, considering the discrepancies between stakeholders. The results open the way to future research to explore potential conflicts and collaboration between and within stakeholders in order to advance towards more sustainable institutions in the higher education sector.

Keywords – Stakeholder engagement, Sustainability reporting (SR), Higher education institutions (HEIs), Stakeholders, Materiality

Paper type – Research paper

1. Introduction

Higher education institutions (HEIs) have a fundamental and influential role in society, not only through education, research and knowledge transfer but also because they provide the structure and values for progressing towards sustainable development (SD). In this context, one of the challenges of HEIs is to reorient their efforts to better satisfy social demands and to reconsider their relationship with their stakeholders (Jongbloed *et al.*, 2008). In order to achieve this, HEIs should implement the process known as “stakeholder engagement”, which is defined as “the process used by an organisation to engage relevant stakeholders for a clear purpose to achieve agreed outcomes” (AccountAbility, 2015).

Stakeholder engagement has become a fundamental step in sustainability reporting (SR) (Manetti, 2011) as it legitimises the report and demonstrates how an institution accounts for stakeholder concerns. In addition, the materiality principle is emerging as an essential principle in SR (Calabrese *et al.*, 2015; Global Reporting Initiative, 2013; Manetti and Becatti, 2009) that enables organisations to focus on the matters that are really critical for the achievement of their goals or for influencing stakeholders’ decisions (Global Reporting Initiative, 2013). In the SR context, stakeholder engagement and materiality are closely related. Stakeholder engagement contributes to the identification of material aspects, making it possible to find out the reasonable expectations and interests of stakeholders (Global Reporting Initiative, 2013), and materiality improves the stakeholder–organisation relationship by addressing those issues that are relevant to the organisation and its stakeholders (Calabrese *et al.* 2016) consistently with stakeholder theory (Freeman, 1984).

Despite the increasing importance of stakeholder engagement and materiality in SR, this area is under-researched in the empirical literature (León *et al.*, 2016). This

shortcoming is particularly pronounced in the higher education sector (Ceulemans *et al.*, 2015b), as evidenced by the low number of HEIs that publish sustainability reports (Alonso-Almeida *et al.*, 2014; Ceulemans *et al.*, 2015b; Fonseca *et al.*, 2011), the absence of consecutive reports (Alonso-Almeida *et al.*, 2014) and the insufficient quality of published reports (Fonseca *et al.*, 2011; Lozano, 2011).

With the aim of filling this research gap, the present study empirically explores stakeholder engagement in HEI reporting and deepens the analysis of key internal stakeholders given their participation in the decision-making process and their basic role in the activities of HEIs. In particular, this study addresses the following research questions:

- (i) Which stakeholders are currently involved in HEI SR and how are they involved?
- (ii) To what extent are the expectations of internal stakeholder aligned with the material aspects stated in HEI reports?
- (iii) Do the expectations of internal stakeholders about integrating sustainability aspects into universities differ?

This study applies an exploratory analysis to a set of HEI sustainability reports and presents a descriptive case study of a typical Spanish public university. This study goes beyond reviewing the content of sustainability reports by showing how HEIs adopt the accountability principles of stakeholder inclusiveness and materiality in SR; by analysing the alignment of material aspects with the expectations of internal stakeholders; by testing the discrepancies and similarities between sustainability aspects against the expectations of internal stakeholders; and, finally, by proposing ways for HEI to improve sustainability engagement in SR.

The remainder of this article is organised as follows: Section 2 focuses on the theoretical background. Section 3 introduces the methodology and Section 4 outlines and discusses the main results. Finally, Section 5 presents the conclusions and suggests avenues for future research.

2. Theoretical background

This study reviews various theoretical arguments that support stakeholder engagement and the prominent studies and standards that integrate stakeholder engagement into SR, with a particular focus on the higher education sector.

2.1. Overview

A literature review was conducted based on a concept-centric approach using key concepts (Webster and Watson, 2002). The concepts identified from the three research questions were “higher education” or “university” and “stakeholders”. In addition, for the first and second questions, the term “reporting” is also relevant. These concepts were used to carry out the systematic literature review on the academic database Web of Science. In particular, the combinations used as a search string in “title” and/or “topic” were the following: (1) “higher education” or “university” and “stakeholder”; (2) “higher education” or “university” and “stakeholder” and “reporting”. The search period was established from 2008 to 2016 because, in 2007, the United Nations Global Compact launched the so-called Principles for Responsible Management Education, which encouraged and fostered publications on this research topic.

The search was carried out in November 2016 and led to identification of 115 articles. In the subsequent step, this study defined the inclusion criteria: (i) the abstract had to demonstrate higher education (or university) and stakeholder as the clear focus of the research; and (ii) the article had to be written in English. Consequently, those

duplicate articles and the articles that did not meet the inclusion criteria after a detailed reading of the abstract were excluded, thereby reducing to 38 the number of articles finally included in the literature review. In the end, these 38 articles were carefully read and 21 articles were selected as relevant publications for developing the theoretical framework of this work. In parallel, this study expanded the search process using the additional keywords “sustainability”, “engagement” and “materiality” in combination with “higher education” or “university” and “stakeholder” and/or “reporting” using Google Scholar, with the objective of ensuring the inclusion of all the relevant literature on the topic. This increased the references from 21 to 41.

2.2. Theories supporting stakeholder engagement

The systematic literature review reveals three important theories that explain the need for interaction between HEIs and their stakeholders: stakeholder theory (see, e.g. Mainardes *et al.*, 2012; Miller *et al.*, 2014; Chatelain-Ponroy and Morin-Delerm, 2016; Alarcón-del-Amo *et al.*, 2016); legitimacy theory (see, e.g. Chatelain-Ponroy and Morin-Delerm, 2016; Garde Sánchez *et al.*, 2013) and institutional theory (see, e.g. De Lange 2013; Alarcón-del-Amo *et al.* 2016; Chatelain-Ponroy and Morin-Delerm, 2016).

The main theoretical point of view is stakeholder theory (Freeman, 1984), which argues that organisations must bear in mind the different perspectives and expectations of a variety of constituents (not only holders of capital), called stakeholders, who can influence the outcome of the organisation. In this regard, Donaldson and Preston (1995) argued that stakeholder theory could be justified from three different perspectives: (i) descriptive accuracy to explain corporate characteristics and behaviour, (ii) instrumental power to associate stakeholder management with the achievement of traditional corporate objectives and (iii) normative validity to account for moral and ethical requirements of the managerial function.

Another approach is legitimacy theory (Preston and Post, 1975), which recognises that a social contract must exist between the organisation and society. In this regard, the organisation operates to meet social demands in exchange for approval by society of its objectives and an additional reward to ensure its existence. Nonetheless, this legitimacy can be endangered if society considers that an organisation operates improperly.

From another point of view, institutional theory (Meyer and Rowan, 1977) states that, to achieve legitimacy or prestige, organisations should be accountable to the expectations of the environment, which include pressure elements such as rules and norms. These institutional pressures push organisations to adopt socially responsible behaviour (Campbell, 2007) and encourage communication with stakeholders.

A broad range of studies mainly focus on a unique theory (e.g. Mainardes *et al.*, 2012; Garde Sánchez *et al.*, 2013). However, a single theory is inadequate to explain the relationship between an organisation and the society within which it operates (Fernando and Lawrence, 2014), and more multi-theoretical studies are still needed. In this regard, Fernando and Lawrence (2014) argue that stakeholder theory, legitimacy theory and institutional theory should be considered as complementary rather than as competing with each other. Accordingly, this study contributes to stakeholder engagement in HEI literature, focusing on the normative dimension of the three above-mentioned theories. This dimension becomes especially relevant in the context of HEIs because of their social mission and their public role in education, research and community service. In this respect, HEIs should implement stakeholder engagement to connect the functions of the university to stakeholder expectations, which contribute to adopting a variety of principles, strategies and actions for progressing towards SD. At the same time, stakeholder engagement can support HEIs to construct a system of social norms and values through which society can legitimise HEIs. Additionally, as result of the

normative pressure and the imitation effect (Lieberman and Asaba, 2006), HEIs are encouraged to implement stakeholder engagement so that stakeholders may be held accountable according to international standards of SR and regulatory frameworks.

2.3. Stakeholder engagement in HEIs

A critical stage in the process of stakeholder engagement is to identify and categorise stakeholders to meet their needs and expectations. However, various approaches and methods developed for different purposes have led to confusion over the practice of stakeholder analysis (Reed et al. 2009). Consequently, the identification and classification of stakeholder in the concrete sector of higher education deserves further examination.

As Freeman (1984) stated, stakeholders are “any group or individual who can affect or is affected by the achievement of the organisation’s objectives”. Drawn from Freeman’s definition of stakeholders, Mitchell *et al.* (1997) proposed a typology of stakeholders according to whether they possess one, two or three of the following attributes: the power of the stakeholder to influence the organisation, the legitimacy of the stakeholder’s relationship with the organisation, and the urgency of the stakeholder’s claim on the organisation. Similarly, Podnar and Jancic (2006) found three different levels of stakeholders: “inevitable exchange”, “required exchange” and “desirable exchange” that can differ based on the stakeholder’s power to influence organisational success. Focusing on higher education, Burrows (1999) proposed four dimensions for distinguishing stakeholders: (i) location, (ii) involvement status, (iii) potential for cooperation and (iv) interest in and influence on the organisation.

One of the most common classifications from the broad range of stakeholder classifications that can be found in the literature is based on stakeholder location (Burrows, 1999; Cortese, 2003 Jongbloed *et al.* 2008; de Lange, 2013). This

classification clusters stakeholders depending on whether they are internal or external to the organisation. However, this classification has been discussed in the literature since, traditionally, the concept of stakeholder is understood as someone external to the institution's governance system. In fact, the voluntary nature of SR on the part of organisations implicitly defines the stakeholders as entities outside the organisation and dependent on the organisation's willingness to disclose (Reynolds and Yuthas, 2008). Nonetheless, an alternative point of view, also noted by Reynolds and Yuthas (2008), may be that the organisations are simply another player in the social context, where the structure of the individual, the organisation and society are not separable and stakeholders are an intrinsic part of the discourse rather than peripheral to the process. This approach promotes an interactive and democratic way to participate in the governance system.

HEIs may be understood as organisations with public missions, closer to the stage where the organisations are understood as another player in society. In fact, HEIs include in their formal governance structure: students, different type of employees—academic staff, operational staff and managers (also known as internal constituents)—and other representatives of society, although stakeholders and their participation differ depending on the model of the university's governance and regulation.

Nevertheless, in the real world, university's governance is dominated by a hierarchical form with a top-down approach (Murray, 2008). For instance, Shattock (2013) argued that in the British higher education sector, the instability of the external environment of the last decade has driven the universities to become more hierarchical and push academic participation to the periphery of institutional policy debate. In these hierarchical environments, participatory processes are clearly positive in order to meet social demands. In literature, a growing number of studies focus on the benefits of

participatory approaches in HEIs to contribute towards the integration of sustainability in their missions, values and activities and tools that encourage an effective participatory stakeholder engagement (Reed et al. 2009; Disterheft et al., 2015a; Disterheft et al., 2015b; Disterheft et al., 2016).

Stakeholder engagement is increasingly recognised as a crucial element of SR (Manetti, 2011). However, there is a lack of evidence about the processes used to define which stakeholders the organisation engaged with, and about how or how far engagement can influence the report content (Ceulemans *et al.* 2015b, Manetti, 2011).

This knowledge gap is more evident in HEIs, given the limited number of sustainability reports published by them (note the number of reports obtained in this study). This low number conflicts with HEIs orientation, as a part of the public sector, towards social and non-profit objectives (Jongbloed *et al.*, 2008) and it requires more research. A possible explanation is that the external pressure on HEIs is weaker than in the private sector, for example regarding the demand for information on the part of institutional investors. Moreover, the voluntary nature of SR is often driven by internal factors and internal constituents. In this regard, Jongbloed *et al.* (2008) identified important barriers in the internal structure of HEIs to engaging with the local and regional community: (i) the gap between the research agenda or curricula and social demands, (ii) the internal reward structure of universities and (iii) the lack of an entrepreneurial culture in universities, where the academics are more concerned with their own research agendas than the demands placed on them to improve pedagogical practices and contribute to innovation and social progress.

HEIs should be held accountable to ensure their ongoing usefulness to society, especially given their role as providers of social services, and should engage stakeholders to enable their democratic participation in the moral discourse of the

organisation (Reynolds and Yuthas, 2008). In this regard, more attention should be devoted to finding out which stakeholders are considered to define the contents of SR and how they have participated in the engagement process, exploring whether, in practice, HEIs use effective instruments for involving stakeholders in the organisation's decision-making (Manetti, 2011). Consequently, this study elucidates stakeholder engagement by answering the following research question:

RQ1. Which stakeholders are currently involved in HEI SR and how are they involved?

2.4. HEI sustainability reports: materiality and stakeholder engagement

In the absence of legal requirements, voluntary reporting guidelines have proved essential for improving reporting consistency and the quality of disclosures (Chatelain-Ponroy and Morin-Delerm, 2016). In this context, a broad range of frameworks for SR have been developed by different organisations, such as the Eco-Management and Audit Scheme (EMAS), the International Organisations for Standardisation (ISO 14001), the Council on Economic Priorities Accreditation Agency Social Accountability Standard (SA8000), the Institute of Social and Ethical Accountability Standard (AA1000) or the Global Reporting Initiative (GRI Sustainability Reporting Guidelines). The present study focuses on the Global Reporting Initiative (GRI) framework because it is one of the primary frameworks of SR (Reynolds and Yuthas 2008; León *et al.* 2016) and provides an understandable and easy-to-standardise reporting format and a multi-stakeholder approach (Lozano *et al.*, 2013a).

The GRI guidelines identify a series of key reporting principles to generate a balanced and reasonable report on the social, environmental and economic performance of an organisation. One of these principles is “Materiality”, which is a central concept in the latest generation of GRI guidelines (G4) (Global Reporting Initiative, 2013). The

GRI states that material topics for a reporting organisation should include topics that have an impact on an organisation's economic, environmental and social value, its stakeholders and society at large (Global Reporting Initiative, 2013). In this vein, materiality, in the context of SR, refers to those topics that are important for the organisation or the stakeholders involved.

In the literature, few studies deal with the topic of materiality for SR by HEIs. As initial contributions, the present study identifies the analysis carried out by Larrán *et al.* (2012) who, to determine the material aspects, surveyed a set of public Spanish universities to identify the concerns of various HEI stakeholders. In the same way, Mainardes *et al.* (2012) analysed the expectations of public university students to identify and classify the most relevant aspects of the university.

According to this principle, core activities should be among the topics on which HEIs must report. In this regard, the vast majority of studies related to higher education consider education, research and community outreach as the main activities of HEIs (Cortese, 2003; Lidgren *et al.*, 2006). Therefore, the material aspects should be reflected in indicators included in sustainability reports, which should address the core activities of HEIs. In this respect, GRI guidelines organise indicators in terms of economic, environmental and social performance; however, no educational category exists. Consequently, GRI guidelines are inadequate to assess the core competences of HEIs (Lozano, 2006).

Some studies on this topic tackle the issue of reporting indicators and assessment for HEIs. A fundamental contribution to this field is the Graphical Assessment of Sustainability in Universities (GASU) tool, which was developed by Lozano (2006) and implemented by the University of Leeds to prepare its report (Lozano *et al.*, 2013a). This tool, based on the GRI Guidelines, includes an educational dimension and suggests

indicators regarding curriculum and research categories that facilitate the comparison of university sustainability performance over time and benchmarking against other universities. Another such instrument is AISHE (assessment instrument for sustainability in higher education), developed in 2001 and updated in 2007 by the Dutch organisation for the advancement of SD in higher education, which focuses mainly on the educational aspect (Roorda and Martens, 2008). Likewise, Madeira *et al.* (2011) designed a method for reporting SD performance in HEIs called “SusHEI”, which includes various stakeholders in the SR process. This tool takes into consideration the core activities of an HEI (education and research), its economic, environmental and social impacts and the role of its community. Similarly, White and Koester (2012) also combined the use of GRI guidelines with the tool called the “Sustainability Tracking, Assessment and Rating System” (STARS), which was developed by the Association for the Advancement of Sustainability in Higher Education in order to assess curricular and research activities. Most recently, Disterheft *et al.* (2016) developed INDICARE, an indicator-based model that allow to assess participatory processes within higher education’s sustainability initiatives.

In SR, another important principle is “Stakeholder Inclusiveness”, which recognises stakeholder engagement as a tool for understanding the expectations and interests of stakeholders (Global Reporting Initiative, 2013). Engaging stakeholders is essential for an appropriate analysis of materiality, by which organisations can identify their own more relevant sustainability aspects (Bellantuono *et al.*, 2016) and develop complete and useful SR (AccountAbility, 2015; Global Reporting Initiative, 2013). Nevertheless, in the academic world, the relevance of HEI stakeholder engagement and the materiality process in the SR process remains rarely studied (Adams, 2013; Alonso-Almeida *et al.*, 2014; Ceulemans *et al.*, 2015a; Ceulemans *et al.*, 2015b; Lozano, 2011). In this regard,

the relationship between material aspects and the interests and expectations of different stakeholders is an emerging gap in the empirical research.

According to Ceulemans *et al.*, (2015b), the result of materiality analysis and the indicators reported could depend on the expected outcome, the specific context of the HEI, and the stakeholders involved. Nonetheless, GRI (2013) states that the interest and expectations of stakeholders specifically invested in the success of the organisation should be taken into account in defining material aspects. In the case of HEIs, basic stakeholders without which HEIs cannot function properly are academic and non-academic staff and students (Jongbloed *et al.* 2008), who are classified as internal stakeholders. Accordingly, with the aim of ensuring that material aspects reflect the expectations of internal stakeholder, this study explores the following research question:

RQ2. To what extent are the expectations of internal stakeholders aligned with the material aspects stated in HEI reports?

2.5. Expectations among internal stakeholders about sustainability in HEIs

Sustainability has become a social demand because society expects that HEIs manage and are accountable for their environmental and social impacts in addition to contributing to SD (Hayter and Cahoy, 2016). In fact, an increasing number of declarations, charters and partnerships have been designed to provide a framework for HEIs to integrate sustainability into their organisations. In most cases, these include stakeholder collaboration, engagement and outreach as important elements to promote SD in HEIs (Lozano *et al.*, 2013b).

A crucial factor in reorienting an organisation towards sustainability is the sharing of common sustainability values between the members of the organisation, which helps align different expectations (Benn *et al.*, 2014). However, early experiences in universities have shown that lack of interest and involvement in sustainability on the

part of students, managers, academic and non-academic staff constitute a notable obstacle to the successful implementation of sustainability in HEIs (Velazquez *et al.*, 2005).

Previous findings in the literature need to be complemented with more detailed assessments of stakeholders' expectations about sustainability aspects that will make it possible to increase the effectiveness of the stakeholder engagement process. The literature underlines the three main internal stakeholders of HEIs: academic staff, non-academic staff and students (Burrows, 1999; Cortese, 2003; Jongbloed *et al.* 2008; Turan *et al.*, 2016), who are critical in reorienting HEIs' mission towards sustainability (Hayter and Cahoy, 2016), due to their condition as members of universities and, consequently, their ability to participate in the democratic governance structures of HEIs. For academic staff, non-academic staff and students, the different characteristics, motivations and relationships with external stakeholders could significantly affect their attitudes, beliefs and expectations regarding sustainability in HEIs. In this context, this study raises the following research question:

RQ3. Do the expectations of internal stakeholders about integrating sustainability aspects into universities differ?

Focusing on the main roles of and differences between the three stakeholders, academic staff represent the nucleus of scientific production and curricula development. According to Jongbloed *et al.* (2008), strong barriers hinder this group from responding to social demands; for example, accreditation criteria for the degree programs, the promotion system, the allocation of financial resources or the reward system, all of which support the traditional higher education system. Non-academic staff act as a bridge between managers and academics and between academics and external stakeholders. Students are crucial agents in the teaching–learning process and have a

shorter presence in HEIs (Godemann *et al.*, 2014). Their professional future may be conditioned by the qualifications demanded by the market or by the connections between HEIs and the job market, making HEI stakeholder engagement an important factor in their professional success.

Based on the previous research question and above-mentioned arguments, the following hypotheses are developed and empirically tested:

H₁: The expectations of non-academic staff to integrate sustainability aspects into universities differ from those of academic staff.

H₂: The expectations of students to integrate sustainability aspects into universities differ from those of non-academic staff.

H₃: The expectations of students to integrate sustainability aspects into universities differ from those of academic staff.

3. Methodology

To answer the three research questions empirically, this study uses an exploratory and descriptive approach that relies on two methodologies: content analysis and case study.

A qualitative content analysis (Mayring, 2014) is conducted with the aim of determining which stakeholders are involved in sustainability reporting, how they are involved, and which material aspects have been identified as a consequence of stakeholder engagement. In order to do that, this study selects the HEI sustainability reports prepared according to GRI-G4 guidelines that identify stakeholders in the process by which material aspects are determined. In this part of the study, the sample comprises the 2014 HEI sustainability reports (data from 2013) that are based on the GRI-G4 guidelines and listed in the GRI Sustainability Disclosure Database. The following 10 HEIs comply with this requirement: Deakin University (U1, Australia), Anhanguera (U2, Brazil), Estácio (U3, Brazil), Pontificia Universidad Católica de Chile

(U4, Chile), Pontificia Universidad Católica de Valparaíso (U5, Chile), Ball State University (U6, USA), ETSII Politécnica de Madrid (U7, Spain), Ateneo de Manila (U8, Philippines), University of Torino (U9, Italy), and University of Minho (U10, Portugal). Note that 30% are from Europe, 10% are from North America, 40% are from South America and 20% are from Australasia.

This qualitative content analysis established categories for stakeholders and engagement techniques to answer the first research question, as well as material aspects to contribute to the second question. Two experts in the field extracted the main elements of the stakeholder engagement process as given in the HEI sustainability reports; in the case of any discrepancy, a third expert reviewed the sustainability reports (Roman *et al.*, 1999; Moneva *et al.*, 2007). In the second research question, this study compared the material aspects with the expectations of internal stakeholders. The material aspects identified in the sustainability reports were classified according to the modified Lozano proposal (2006) for universities updated according to GRI-G4.

In its analysis of stakeholder expectations in a real-world context, this study designs and implements a case study (Yin, 2014). The aim of this analysis is twofold: to find out whether the internal stakeholders' expectations are aligned with the material aspects and to identify substantial differences between the internal stakeholders' expectations. For the case study, the data are collected from a representative Spanish public university (Pérez, 2013) of medium size as determined by the number of students and in the second tertile in the ranking by academic, research and technological innovation. This university offers an extensive variety of studies and disciplines. As with most Spanish HEIs, this university has yet to create a sustainability report, although this university is committed to sustainability and publishes sustainability information through its institutional website.

The case study was developed by a group of sustainability experts who established a stakeholder map based on the Jancic model (Podnar and Jancic, 2006) and applied the Mitchell model (Mitchell *et al.*, 1997) to identify the most important stakeholders: students, non-academic staff and academic staff. Next, data were collected through an online survey based on the work of Larrán *et al.* (2012) and adapted to the context. The purpose of the survey was to determine the expectations of each key internal stakeholder regarding the contribution to university management of various sustainability aspects, thereby making it possible to test the hypotheses about differences between internal stakeholders' expectations derived from the third research question. Answers were given on a five-point Likert scale, where 1 means "not significant" and 5 means "very significant".

The survey garnered 457 respondents in May and June 2013. After removing the invalid answers, the final sample includes 440 participants classified into three groups: 149 students, 120 non-academic staff and 171 academic staff. The results of the survey remain valid in 2016 because the sustainability framework of the institution is unchanged and the expectations of the three groups of stakeholders have not changed significantly compared to previous results. As a check that the answers remain valid in 2016, they were subjected to a robustness analysis in September 2016, which took the form of a pilot group of 31 students who completed the same survey and a focus group containing 10 academics and 8 non-academic staff. The focus group was developed in two meetings: one for academics and the other for non-academic staff; and used a protocol of a semi-structured interview. The results confirmed the 2013 responses.

The data analysis of the first and second research question was carried out by means of a frequency analysis, after coding qualitative data about stakeholders' groups, techniques for stakeholder engagement and material aspects. Additionally, in the case of

the second question, the frequency of material aspects is compared with the mean of expectations of internal stakeholders. Specifically, this study observes whether those aspects whose mean of importance is above 4 (of a maximum of 5) for the three stakeholders are the equivalent aspects determined as being material for at least 60 per cent of universities (more than five universities). The third research question is explored through descriptive statistics (mean, standard deviation and quartiles) regarding the level of importance allocated to the aspects by each internal stakeholder. The three hypotheses emanating from this research question are tested by applying a non-parametric approach, namely, the Kolmogorov-Smirnov test of the equality of distributions. For each hypothesis, this study tests whether there is a significant difference between the distribution functions of the responses of two respective stakeholders.

4. Results and discussion

This section presents and discusses the main results regarding the three research questions.

4.1. Which stakeholders are currently involved in HEI SR and how are they involved?

Table 1 provides a list of stakeholder groups engaged by each HEI. A complete consensus of internal stakeholders exists in the literature for selecting the three key groups (also referred to in the literature as “key internal constituents”) (Burrows, 1999; Cortese, 2003; Jongbloed *et al.*, 2008; Turan *et al.*, 2016). Four HEIs also identified “university decision makers” as internal stakeholders. This group of stakeholders includes single-member governing bodies such as rectors, vice-rectors, deans or department heads, which may be academic staff. For external stakeholders, the HEIs include a wide range of groups, the most common being employers and potential students or alumni. This large variety of external stakeholders reflects the diversity of

connections between HEIs and society, although there is not any marginal group explicitly identified such as people with disabilities or long-term unemployed people. In addition, this study has observed a lack of information about the specific methods used for identifying and categorising stakeholders. These facts challenge the robustness of the stakeholder analysis from an inclusive and plural view, since the leading team could identify and categorise stakeholders from a top-down approach reflecting their interests and biases and marginalising those groups that are socially disadvantaged or not easily accessible (Reed et al. 2009).

Insert Table 1 about here

Table 2 displays the techniques used to determine stakeholder concerns. These techniques are not always reported by stakeholder groups nor is the frequency of engagement mentioned; one university even fails to explicitly mention the technique used. Once again, this lack of information in SR could call into question the rigorousness of the stakeholder engagement process and, consequently, its usefulness to the internal management process. The most-used techniques are survey and stakeholder workshops or panels, with each being applied by the 50% of the sample. This fact clearly illustrates the need to encourage the adoption of bidirectional communication techniques and dialogue to allow stakeholder concerns to be better understood and included in the management process. Communication based on listening stakeholders, giving feedback and non-judging their attitude is considered as a critical success factor for an effective participation of the stakeholders in the transition towards sustainable universities (Disterheft et al., 2015b). Consequently, the techniques used to determine stakeholder concerns should include reflective listening and assertive communication strategies in order to contribute to participatory stakeholder engagement.

Insert Table 2 about here

4.2. *To what extent are the expectations of internal stakeholders aligned with the material aspects stated in HEI reports?*

Table 3 shows the material aspects mentioned in the sustainability reports of the sample. These results indicate that the majority of HEIs agree in considering as material a broad range of aspects associated with economic and environmental categories. For the social category, the most material aspects are those related to non-discrimination, local communities, employment, health and safety, training and education, security practices and human rights. With respect to other aspects not included in Lozano's (2006) framework, 60% of the HEIs consider as material aspect ethical actions, which refer to how HEIs partake in responsible and ethical behaviour when dealing with their stakeholders. In addition, the findings suggest a lack of consensus on educational aspects, which may be explained by the corporate-dominated structure of SR and the limited number of sectorial reporting standards that include curriculum and research issues. In this case, a sectorial framework for HEIs would provide invaluable help in identifying and reporting those material aspects for the educational dimension.

Insert Table 3 about here

Table 4 displays the descriptive statistics of the survey results. The mean shows that internal stakeholders considered all aspects included in the survey as a positive contribution to university management, with none of the aspects being assessed below 3.5 out of 5. The degree of relevance for each aspect is in line with the materiality results, with the more important aspects (mean above 4 for the three stakeholders) being those associated with environmental and economic issues, employment, health and safety, and ethical actions. Only the aspect of "transparency" obtained a high score for

the three stakeholders. However, only two universities consider this aspect to be material, probably due to transparency and participation of stakeholders are not generally being assessed or considered an explicit aspect in the main sustainability reporting frameworks.

The aspects with a lower degree of importance from the perspective of internal stakeholders are in the educational category. A possible explanation for this result could be that key internal stakeholders consider sustainability to be unconnected with traditional teaching and research activities and do not appreciate their active and essential role in education to improve the quality of university management. This situation could be caused by a dominant instrumental stakeholder approach, where the initial efforts of the HEI attempt to implement environmental management systems to reduce environmental and economic impacts of campus. In order to foster education for sustainable development in a comprehensive way, HEIs should introduce sustainability competency and develop sustainability skills through the academic content and research programs.

Combining these findings, this study reveals that the expectations of internal stakeholders have a high degree of consistency with the materiality analysis from sustainability reports. The low importance of integrating sustainability in education could be influenced by a lack of culture of participation in the transition to sustainable universities. Other possible explanation of this result could be the poor quality of information in the educational dimension in the reports and the very limited involvement of academics in their teaching role and students with experiences in education for sustainable development.

Insert Table 4 about here

4.3. Do the expectations of internal stakeholders about integrating sustainability aspects into universities differ?

The expectations of various groups of internal stakeholders may differ given the particularities of their relationships with the HEIs. This question is answered through the three hypotheses. Table 4 presents the results of a univariate analysis to test the hypotheses. For Hypothesis 1, the results show that no significant difference exists between the expectations of non-academic staff and academics. Therefore, Hypothesis 1 is not supported for the 17 sustainability aspects. Regarding the differences in expectations between students and non-academic staff (Hypothesis 2), the results reveal a significant difference in the aspect “Labour and Management Relations”, but no significant differences in the remaining 16 aspects. This result indicates that the potential contribution to university management of good labour relations is of higher value to students than to non-academic staff. Consequently, Hypothesis 2 is only supported in the sustainability aspect “Labour and Management Relations”. The results regarding Hypothesis 3 indicate a substantial difference between the expectations of students and of academics in four aspects. Only the aspect “efficient resource allocation”, from an economic point of view, is more important for academics than for students. The other aspects with significant differences are “Labour and management relations”, “Improving academic curricula”, and “Relationships with stakeholders”, which are given greater importance by students than by academics to improve university management. This result supports Hypothesis 3 in the above-mentioned four sustainability aspects.

These findings could be explained by the interrelationships between the three stakeholder groups and the different positions that they occupy within the HEIs. First, the academics and non-academic staff have an employment relationship with the

institution, usually of long duration. This common characteristic could contribute to align the expectations of both groups. Second, academics and students play opposite roles in the teaching-learning process and have different interests to connect with the expectations of external stakeholders. Academics have a reward system that does not promote their interactions with society; however, the professional success of students may depend, during a brief period, on the relationship between HEIs and the job market or other external stakeholders. Consequently, these differences could affect the expectations for university management and their interrelationship with sustainability aspects. Nonetheless, it is important to note the leading role that academics play as knowledge transmitters, since they could influence the expectations of students. In this case, the observed students' expectations could be biased by the academics' concerns. Finally, non-academic staff seem to play a mediating role because they offer support services to both academics and students in addition to the management system in general. This fact might justify that the prioritisation of the aspects of this group takes a position intermediate between that of academics and students.

5. Conclusions

This study contributes to the limited literature on stakeholder engagement in HEI SR by exploring how stakeholders are involved in SR, determining the extent to which the expectations of internal stakeholders align with the material aspects and finding the degree of consensus in the expectations of internal stakeholders for the contribution of various sustainability aspects to HEI management. After reviewing the theoretical framework, the study discusses evidence from the GRI-G4-based sustainability reports of 10 HEIs and a case study of a representative Spanish public university.

The research reveals a number of remarkable findings. First, the HEIs sampled all identify “students”, “non-academic staff” and “academics” as key stakeholders to

involve in the process of preparing sustainability reports. Second, surveys and stakeholder workshops or panels are the most common techniques to bolster stakeholder engagement. Third, material aspects in SR are associated by at least 60% of the sample with economic, environmental, labour practices and decent work, human rights, local communities and ethical issues. This is aligned with the expectations of internal stakeholders. Finally, students and academics differ significantly on the prioritisation of some aspects from social, education, governance and economic categories to contribute to HEI management, with non-academic staff holding an intermediate position.

The empirical results of this study may be conditioned by the sample and the availability of information. For instance, the results of the sustainability reports explored may be biased by particular regional factors from South America, since 40% of HEI reports originate from this area. Larger samples, extending this study to additional sustainability reports, including other HEI case studies and additional stakeholders are clearly needed to confirm the validity of these results. Another limitation may be related to the categories established. Future studies should address possible interconnections between and among the various categories, such as economic and environmental categories.

This study has several practical implications. First, the definition of HEI mission, values and institutional strategy should rely upon participatory stakeholder engagement. Encouraging more dialogue, reflection, participation and collaboration should be part of the shared mission and culture of the university. In addition, HEIs should foster higher levels of empowerment to stakeholders to open-up critical issues and make conflicts visible in an early stage of the decision-making process.

Second, in their search to make stakeholder engagement a reality and create a common culture of sustainability, HEIs should identify barriers and drivers and take

actions to reduce discrepancies between students and academics. In the case of students, who have a shorter relationship with the university, HEIs should motivate them to create an authentic interest from the institutional side and ensure a large participation in the engagement processes. For this end, HEIs could develop participatory culture and courses oriented to increase their participatory skills and competences. Regarding academics, whose expectations about the importance of sustainability for university management is lower than the other internal stakeholders, HEIs should launch training programmes about the importance of social, educational and governance dimensions for the success of the HEIs. These institutions also may use the role of non-academic staff to balance the diverging interests of students and academics, collaborating in the design of above-mentioned initiatives.

Third, SR is an important element of communication and management that requires an effective stakeholder engagement, which implies that the participatory process and stakeholder expectations should be detailed in the report. This action requires more justification about the inclusion or exclusion of certain groups and an assessment of the quality of stakeholder engagement with the aim of making sure that their content is not biased by the top team of the institution. In this regard, it is necessary that SR frameworks integrate the domain of participatory process following Disterheft (2016) proposal.

Fourth, the engagement should promote a real dialogue and consider stakeholders that are not necessarily directly represented in the decision-making bodies of the university. If the stakeholder engagement process and results were adequately detailed in SR, it would serve a twofold purpose. On the one hand, SR could allow the university to have a better understanding of social demands beyond the formal stakeholders that participate in university governance. On the other hand, the results of stakeholder

engagement could be used to ascertain whether the interests supported by representatives of HEI stakeholders in the decision-making bodies align with those of HEI stakeholders in general.

These findings raise the following questions for future research into HEIs: Are the material aspects of HEIs included in SR based on a real participatory stakeholder engagement? How do HEIs assure that representatives of stakeholders defend the general interest and not their own interest? Are there relationships between stakeholders? How are they considered in the engagement process? Does a consensus on the expectations of sustainability exist within each group of stakeholders? Could factors such as generation, type of employment contract or position regarding the connection with the external environment shed light on the barriers or drivers of more sustainable HEIs? The answer to these questions could ensure a high quality of information in the sustainability report and facilitate the creation of structural links to bring HEIs and society closer together and advance towards more sustainable HEIs.

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TABLES

Table 1 - Identification of Stakeholders in Sustainability Reports

Stakeholders	Classification	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	Total
Operational staff (non-academic staff)	Internal	√	√	√	√	√	√	√	√	√	√	10
Teachers/Academics	Internal	√	√	√	√	√	√	√	√	√	√	10
Students	Internal	√	√ ¹	√	√	√	√	√	√	√	√	10
University decision-makers	Internal				√	√	√	√				4
Volunteers	Internal		√									1
Market/ Companies/ Employers	External		√		√	√		√	√	√	√	7
Graduates/ pregraduates (alumni)/students organisations	External			√	√	√	√	√	√	√		7
Government/ Sector regulatory bodies	External	√	√			√	√			√	√	6
Municipal Departments	External	√	√			√		√		√	√	6
Local Community		√	√				√	√	√	√		6
Society – NGO's	External		√	√		√		√	√	√		6
Investors/ Shareholders/ Donors	External		√	√				√	√	√		5
The academic and scientific sector	External		√			√		√		√	√	5
Media/ Opinion leaders	External		√	√				√		√		4
Suppliers	External		√					√	√	√		4
Partnering institutions/ collaborators	External		√					√		√		3
Competitors/ Other universities	External		√					√		√		3
Trade Unions	External							√	√	√		3
Third-parties and Others	External		√						√ ²	√ ³	√ ⁴	4

¹U2 classifies 'Students' as external parties

²U8 includes as stakeholder 'Parents of students'

³U9 includes as stakeholder 'Relatives of students'

⁴U10 includes as stakeholder the 'Environment'

Source: Own elaboration based on 2014 sustainability reports according to G4, supplied by the GRI-Sustainability Disclosure Database

Table 2- Techniques for stakeholder engagement in Sustainability Reports

Level	Techniques for Stakeholder Engagement	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	Total
One way – Communication	Analysis of Documents: Sector analysis, data from ministry, codes and policies from education strategy		√		√			√				3
	Website information	√						√				2
	Newsletters/magazines/ briefing	√						√				2
	Social networks							√				1
Basic consultation	Surveys	√			√		√	√			√	5
	Written communication (emails)	√						√				2
	Online platform									√		1
In-depth dialogue	Workshops/Stakeholders panels (with experts and opinion leaders)	√	√	√	√			√				5
	Events (eg. Faculty day)	√						√	√	√		4
	Internal interviews			√	√							2
	Meetings	√	√					√				3
	Participation in conferences/ online seminars/ orientation seminars/ School Forums							√	√			2
	Advisory committee							√				1

Source: Own elaboration based on 2014 sustainability reports according to G4, supplied by the GRI-Sustainability Disclosure Database

Table 3 – Material aspects in Sustainability Reports

Category (Subcategory)	Aspect - number university	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	Total	
Economic - GRI	Economic Performance	A		A		A	A	C	A	A	A	8	
	Market Presence	A	A		A	A	A	C	A			7	
	Indirect Economic Impacts		A					A	C	A	A	6	
	Procurement Practices							A	C	A	A	4	
Economic - Non-GRI	Investment in sustainable development	A										1	
Environmental - GRI	Materials		A				C	A	C	A		6	
	Energy	A	A				C	A	C	A	A	8	
	Water		A				C	A	C	A	A	7	
	Biodiversity			A	C			A	C	A	A	7	
	Emissions	A		A	C			A	C		A	7	
	Effluents and Waste		A	A	C			A	C	A	A	8	
	Products and Services					C		A	C		A	4	
	Compliance			A	C			A	C		A	5	
	Transport	A				C			A	C		A	6
	Overall					C			A	C		A	4
	Supplier Environmental Assessment					C			A	C		A	5
	Environmental Grievance Mechanisms					C			A	C		A	5
	Environmental – Non- GRI	Growth of environmental Impact	A										1
	Environmental Quality								A			1	
Social – GRI (Labour Practices and Decent Work)	Employment	A	A	A	A	A	A			A	A	8	
	Labour/Management Relations						A	A		A		3	
	Occupational Health and Safety	A		A		A	A		A		A	6	
	Training and Education		A	A		A	A			A	A	6	
	Diversity and Equal Opportunity	A	A			A	A			A		5	
	Equal Remuneration for Women and Men							A			A	2	
	Supplier Assessment for Labour Practices							A			A	3	
	Labour Practices Grievance Mechanisms						A	A			A	3	
Social – GRI (Human Rights)	Investment							A	C	C	C	5	
	Non-discrimination	A		A	A	A	A	C	C	C	C	9	
	Freedom of Association and Collective Bargaining							A	C	C	C	5	
	Child Labour							A	C	C	C	5	
	Forced or Compulsory Labour							A	C	C	C	5	
	Security Practices	A						A	C	C	C	6	
	Indigenous Rights Assessment							A	C	C	C	5	
	Supplier Human Rights Assessment							A	C	C	C	5	
	Human Rights Grievance Mechanisms						A	A	C	C	C	6	
Social – GRI (Society)	Local communities	A	A	A	A			A		A	A	8	
	Anti-corruption							A			A	3	
	Public Policy				A	A	A					3	
	Anti-competitive Behaviour							A				1	
	Compliance		A					A			A	3	
	Supplier Assessment for Impacts on Society							A				1	
	Grievance Mechanisms for Impacts on Society							A				A	2

Category (Subcategory)	Aspect - number university	U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	Total
Social – GRI (Product Responsibility)	Customer Health and Safety						A					1
	Product and Service Labelling		A			A	A			A		4
	Marketing Communications		A			A	A	A				4
	Customer Privacy										A	1
	Compliance		A					A				2
Educational Non-GRI (Curriculum)	SD incorporation in the curricula	A			A			A				3
	SD capacity building	A										1
	SD monitoring in curricula											0
	Administrative support				A	A		A			A	4
	Distance education		A									1
	academic programs						A		A	A		3
	Results of the education								A			1
Educational Non-GRI (Research)	Students					A					A	2
	Research in general	A		A	A	A						4
	Grants							A				1
	Publications and products			A				A				2
Educational Non-GRI (Service)	Programs and centres	A								A		2
	Research and social problems								A			1
	Community activity and service	A				A		A	A			4
	Service learning	A	A	A								3
	Entrepreneurship and Research						A					1
Corporate Governance Non-GRI	Appropriate structure for a sustainable future	A	A			A						3
	Transparency	A			A							2
	Relationships with stakeholders			A		A		A			A	4
	International cooperation and sector coordination			A		A						2
	Acting Ethically and with integrity (ethical code)	A		A	A			A	A		A	6
GRI - aspects		N	Y	N	N	Y	Y	N	N	Y	Y	

A means Aspect, C means Category, N means No, Y means Yes

Source: Own elaboration based on 2014 sustainability reports according to G4, supplied by the GRI-Sustainability Disclosure Database

Table 4 – Stakeholder expectations based on the case study

Category (Subcategory)	Aspect (n. univ)	Stakeholder	Descriptive statistics						Kolmogorov-Smirnov test		
			Obs.	Mean	S.D.	25 th P.	50 th P.	75 th P.	Std vs. Non-A	Std vs. Acd	Non-A vs. Acd
Economic	Efficient Resource Allocation	Total	440	4.20	0.97	4	4	5	0.07	0.15*	0.10
		Students	149	4.05	1.09	3	4	5			
		Non-Academics	120	4.15	0.96	4	4	5			
		Academics	171	4.37	0.83	4	5	5			
Environmental	Respect for the environment	Total	438	4.23	0.91	4	4	5	0.04	0.03	0.05
		Students	148	4.22	0.95	4	4	5			
		Non-Academics	120	4.18	0.96	4	4	5			
		Academics	170	4.30	0.83	4	4	5			
Social (Labor Practices and Decent Work)	Employment and work-life balance	Total	288	4.10	0.96	4	4	5	.	.	0.04
		Students	.	.	.	.	.	.
		Non-Academics	119	4.14	0.95	4	4	5			
		Academics	169	4.07	0.96	3	4	5			
	Labor/Management Relations	Total	438	3.93	1.00	3	4	5	0.16*	0.18**	0.05
		Students	148	4.13	1.03	4	4	5			
		Non-Academics	120	3.89	0.92	3	4	5			
		Academics	170	3.78	1.01	3	4	5			
Occupational Health and Safety	Total	289	4.04	0.94	4	4	5	.	.	0.05	
	Students	.	.	.	.	.	.
	Non-Academics	119	4.10	0.89	4	4	5				
	Academics	170	4.01	0.97	4	4	5				
Social (Human Rights)	Non-discrimination and integration	Total	437	3.97	0.96	3	4	5	0.07	0.04	0.07
		Students	147	4.02	0.94	3	4	5			
		Non-Academics	120	3.88	0.99	3	4	5			
		Academics	170	3.99	0.95	3	4	5			
Social (Product Responsibility)	Quality of the information received	Total	436	3.92	0.97	3	4	5	0.07	0.12	0.04
		Students	148	3.99	1.04	3	4	5			
		Non-Academics	118	3.89	0.99	3	4	5			
		Academics	170	3.88	0.90	3	4	5			
Social (Society)	Relations with society	Total	289	4.02	0.87	3	4	5	.	.	0.06
		Students	.	.	.	.	.	.
		Non-Academics	119	3.99	0.83	3	4	5			
		Academics	170	4.04	0.90	3	4	5			
Educational (Curriculum)	Improving academic curricula	Total	436	3.90	0.93	3	4	5	0.08	0.16*	0.08
		Students	148	3.99	1.00	3	4	5			
		Non-Academics	120	3.93	0.93	3	4	5			
		Academics	168	3.80	0.87	3	4	4			
Educational (Research)	Responsible Research	Total	289	3.60	1.02	3	4	4	.	.	0.04
		Students	.	.	.	.	.	.
		Non-Academics	120	3.73	0.95	3	4	4			
		Academics	169	3.50	1.06	3	4	4			
Educational (Service)	Development in cultural projects	Total	438	3.74	1.03	3	4	5	0.09	0.12	0.05
		Students	148	3.74	1.17	3	4	5			
		Non-Academics	120	3.77	0.99	3	4	4			
		Academics	170	3.72	0.92	3	4	4			
	Knowledge transfer to society	Total	290	3.86	1.07	3	4	5	.	.	0.08
		Students	.	.	.	.	.	.
		Non-Academics	120	3.97	1.02	3	4	5			
		Academics	170	3.78	1.11	3	4	4			

Category (Subcategory)	Aspect (n. univ)	Stakeholder	Descriptive statistics						Kolmogorov-Smirnov test		
			Obs.	Mean	S.D.	25 th P.	50 th P.	75 th P.	Std vs. Non-A	Std vs. Acd	Non-A vs. Acd
Corporate Governance	Transparency	Total	440	4.15	1.02	4	4	5			
		Students	149	4.07	1.06	3	4	5	0.03	0.09	0.08
		Non-Academics	119	4.05	1.10	3	4	5			
		Academics	172	4.28	0.89	4	5	5			
	Relationships with stakeholders	Total	438	3.86	0.96	3	4	5			
		Students	148	4.03	0.95	4	4	5	0.09	0.15*	0.06
		Non-Academics	120	3.80	1.03	3	4	5			
		Academics	170	3.75	0.90	3	4	4			
	Acting Ethically and with integrity	Total	436	4.13	0.92	4	4	5			
		Students	147	4.18	0.92	4	4	5	0.09	0.02	0.06
		Non-Academics	119	4.04	0.95	4	4	5			
		Academics	170	4.14	0.90	4	4	5			
	Improving evaluation systems	Total	289	3.60	1.02	3	4	4			
		Students	.	.	.	.	.	.	.	.	0.10
		Non-Academics	120	3.73	0.95	3	4	4			
		Academics	169	3.50	1.06	3	4	4			
	Value formation	Total	289	4.01	0.94	3	4	5			
		Students	.	.	.	.	.	.	.	.	0.05
Non-Academics		120	3.98	0.92	3	4	5				
Academics		169	4.03	0.96	3	4	5				

Statistically significant at *p<0.05; **p<0.01

Std means Students; Non-A means Non-Academic Staff; Acd means Academics

Source: Own elaboration based on the 2013 survey conducted to a representative Spanish public university