



Contents lists available at ScienceDirect

Journal of Cleaner Production

journal homepage: www.elsevier.com/locate/jclepro

An approach to the implementation of sustainability practices in Spanish universities

Manuel Larrán Jorge ^a, Jesús Herrera Madueño ^a, María Yolanda Calzado Cejas ^a,
Francisco Javier Andrades Peña ^{b,*}

^a Finance and Accounting, University of Cadiz (Spain), Duque de Najera Avenue, Number 8, Spain

^b Management, University of Cadiz (Spain), Duque de Najera Avenue, Number 8, Cadiz, Spain

ARTICLE INFO

Article history:

Received 5 December 2013

Received in revised form

9 July 2014

Accepted 15 July 2014

Available online xxx

Keywords:

Sustainability
Spanish universities
Stakeholders
Survey

ABSTRACT

Sustainability issues in higher educational institutions have attracted increasing levels of attention from both the public and policy makers in recent decades. A number of previous studies have called for a more comprehensive integration of sustainable development into mainstream university operations and curricula. However, there is a lack of sufficient studies that investigate sustainable development in higher education in Spain. Therefore, the present paper has two goals: First, the study analyses the extent to which Spanish universities have implemented sustainability practices in their institutions. To accomplish this task, data were collected using a survey distributed to rectors and senior management at Spanish higher education institutions. The second goal is to examine the main factors that might explain the implementation of sustainability practices in Spanish universities. For this purpose, Pearson chi-square tests were used to analyse the data collected in the survey. Key findings show the slow rate of progress of many Spanish universities with regard to implementing sustainability practices, a fact which could indicate that there are clearly a number of obstacles to overcome. Additionally, there were no factors influencing the implementation of sustainability practices.

© 2014 Elsevier Ltd. All rights reserved.

1. Introduction

The concept of sustainability, developed by the Brundtland Report (World Commission on Environment and Development, [WCED], 1987), foregrounds the intersections of the economic, social, and environmental aspects of corporate actions (the 'triple bottom line'). In recent years, several definitions of sustainable higher education institutions have emerged (Madeira et al., 2011). Alshuwaikhat and Abubakar (2008) argued that a sustainable campus should be environmentally healthy, with a prosperous economy through energy and resource conservation, waste reduction and with efficient environmental management; it should promote equity and social justice and export these values to the community. According to Milutinovic and Nikoli (2014), the vision of sustainable development in higher education is a world where everyone has the opportunity to benefit from a quality education

and learn the values, behaviours and lifestyles required for a sustainable future and for positive societal transformation.

In the last two decades, an increasing number of higher education institutions have been engaged in incorporating and institutionalising sustainability into their systems (Ceulemans et al., 2011; Lozano et al., 2013; Shephard, 2008). This is arguably due to the increased level of consciousness in society of sustainability issues and the significant impacts of campus activities on both the environment and communities (Alshuwaikhat and Abubakar, 2008; Lozano, 2006). In addition, the increasing importance of declarations, charters and partnerships for fostering transformative sustainable development is demonstrated by the more than 1000 university leaders who ratified their commitment to sustainability by signing the Talloires Declaration, the Kyoto Declaration, and the Copernicus University Charter (Calder and Clugston, 2003).

Nevertheless, sustainable development in higher education is still far from being integrated into a holistic and organic manner by university leaders (Lee et al., 2013; Milutinovic and Nikoli, 2014). A number of authors have called for more comprehensive integration of sustainable development into their systems, rather than only as 'add-ons' to existing practices, by engaging in fundamental and radical changes (Fadeeva and Mochizuki, 2010; Ferrer-Balas et al.,

* Corresponding author.

E-mail addresses: manuel.larran@uca.es (M. Larrán Jorge), jesus.herrera@uca.es (J. Herrera Madueño), yolanda.calzado@uca.es (M.Y. Calzado Cejas), javier.andrades@uca.es (F.J. Andrades Peña).

2010; Koester et al., 2006). The slow rate of change at universities presents a tremendous challenge to higher education institutions and society to become more sustainable.

Therefore, the present paper has two goals: First, the study analyses the extent to which Spanish universities have implemented sustainability practices into their institutions. To accomplish this task, data were collected using a survey distributed to rectors and senior management at Spanish higher education institutions. The second goal is to examine the main factors that might explain the implementation of sustainability practices in Spanish universities. For this purpose, Pearson chi-square tests were used to analyse the data collected in the survey.

This paper is organised into the following sections. The second section focuses on the theoretical background. The third section introduces the methods and data. The fourth section presents the main results of the empirical study. The fifth section relates to the discussion of results. Finally, the sixth section provides the primary conclusions of this research.

2. Literature review

2.1. The evolution of sustainable development in higher education

Most previous studies have been aimed at assessing students' and deans' perceptions of the factors that contribute to sustainable development in higher education (Nejati and Nejati, 2013; Yuan and Zuo, 2013); analysing educational approaches to sustainability issues (Buchan et al., 2007; Holdsworth et al., 2008); evaluating the factors that could obstruct the implementation of sustainability initiatives in higher education institutions (Stephens et al., 2008; Velázquez et al., 2005); or examining cases based on strategies on sustainability implemented by a specific university, primarily concerning environmental issues (Hammond and Churchman, 2008; Lee et al., 2013).

Wals and Blewitt (2010) analysed the research published in the International Journal of Sustainability in Higher Education (IJSHE) during the first nine years of its existence (2001–2010). They found that most articles focus on things such as: environmental management, university greening and reducing a university's ecological footprint. In more recent volumes, articles on pedagogy, learning, instruction, community outreach and partnerships appear on the rise. Evangelinos et al. (2009) argued that the promotion of sustainability in the context of higher education institutions can be achieved through teaching and research (Delakowitz and Hoffmann, 2000), improvement of environmental management (Bonnet et al., 2002) and transmitting knowledge to society (Owens and Halfacre-Hitchcock, 2006).

Today, there are still many examples of universities that seek to reduce their own environmental or ecological footprint by campus greening initiatives often led by students. To accomplish this purpose, universities are including the implementation of environmental management systems (Clarke and Kouri, 2009; Wright and Wilton, 2012). The key concerns in the environmental management systems of universities have been identified as energy consumption, waste management, pollution prevention, and resource conservation (Jain and Pant, 2010). A number of international studies have been published in this field (Christensen et al., 2009; Ferreira et al., 2006).

In the specific case of Spain, few studies to date have been undertaken to determine the extent to which universities are implementing sustainability practices. Aznar et al. (2011) analysed the current mood for introducing sustainability across the curricula at the University of Valencia. Their findings show the widespread support for introducing sustainability across the university's curricula; however, as might be expected, significant differences

are apparent in how these questions are addressed by staff from various disciplines, including how they relate to departmental perceptions, interpretations and performance of sustainability-related teaching. Garde et al. (2013a) analysed whether sustainability has become an essential element in activities associated with university accountability, information transparency, and Internet usage. A comparative study of public and private Spanish universities shows that neither is strongly committed to the online disclosure of sustainability information.

Based on the previous studies, there is evidence that suggests that sustainable development is still considered an innovative idea in most universities (Lozano, 2006; Waas et al., 2010), and has not yet permeated down to all disciplines, scholars, and university leaders (Fien, 2002; Lozano et al., 2013). These research findings can point to some possible answers for why higher education does not make explicit sustainability implementation at all levels of the university. Barriers that compromise sustainability initiatives in higher education institutions can stem from a lack of policies or declarations to promote sustainability at universities (Bottery, 2011; Hancock and Nuttman, 2014; Velázquez et al., 2005). Without sustainability policies or declarations, it is very difficult to encourage or motivate members of universities to participate in sustainability initiatives or sustainable development in higher education (Lee et al., 2013).

Many authors noted that there are many obstacles preventing the success of sustainability initiatives in higher education institutions, such as a lack of support from university administrators; a lack of timely information and communication on sustainability; a generalised lack of performance indicators; a lack of interest, awareness, and involvement; a lack of training on sustainability; a lack of incentives; a lack of time; a lack of financial resources; resistance to change and a lack of interdisciplinary research (Ferrer-Balas et al., 2008; Larrán and Andrades, 2013; Sibbel, 2009).

2.2. Higher education context in Spain

Several years ago, Spanish governing bodies introduced a new way to allocate public universities funding based on performance criteria. By funding universities according to their outputs, rather than inputs, state policymakers in Spain believe they are providing an incentive for universities to improve their quality management and accountability (Vilardel and Álvarez, 2010). This performance funding system is known as the contract programme, which is a university policy aimed at promoting institutional responsibility and dialogue between governing bodies and universities (Ribas and Vilalta, 2003). One of the main outcomes of this performance funding system has been the greater number of strategic plans or sustainability reports articulated and published online by Spanish universities in recent years.

However, many institutional statements have emphasised the need to increase the presence of sustainable development in higher education in Spain. The Spanish government developed the 2015 University Strategy to adapt Spanish universities to the guidelines proposed by the European Higher Education Area. On this basis, the Spanish government has drawn up two documents to stimulate the debate on the concepts of university governance and accountability. These documents state that universities should be socially responsible institutions that can help students find jobs, encourage ethical values or contribute to socioeconomic development (Ministry of Education, 2010). The Spanish government has also approved other new legislation with regard to the implementation of sustainability in the higher education context. For example, we note the Organic Law 4/2007 on Universities and the Law 2/2011 on Sustainable Economy (Ministry of Education, 2010). In addition, the Conference of Rectors of Spanish Universities (CRUE) has set up a

Download English Version:

<https://daneshyari.com/en/article/8103143>

Download Persian Version:

<https://daneshyari.com/article/8103143>

[Daneshyari.com](https://daneshyari.com)