EXPLORING THE DEGREE OF INTEGRATION OF SUSTAINABILITY IN BUSINESS CURRICULA AT THE UNIVERSITY OF ALMERIA: AN STUDENTS’ PERCEPTION

M. Gálvez-Rodríguez, N. García-de-Frutos, R. Antolín-López, A. Sáez-Martín

University of Almería (SPAIN)

Abstract

This study aims to explore students’ perception of the degree of integration of sustainability issues in the curricula of the different subjects related to Business disciplines of the University of Almeria (UAL). Specifically, our sample comprises more than 300 responses of students enrolled in different undergraduate and master level degrees of the Faculty of Economics and Business Studies. Overall, students are quite interested in sustainability issues and willing to receive more formation on them. However, our results show that students would like the subjects and professors to devote more attention to sustainability aspects, especially in the subjects of Accounting, Finance and Economics disciplines, where the perceived degree of integration is low. Likewise, students perceive that sustainability issues should take a more leading role in the development of teaching materials and bibliography used for instruction.

Keywords: corporate sustainability, higher education, business curricula, Spain.

1 INTRODUCTION

The severity of the environmental and social problems that current societies face makes essential a transformation of the business paradigm and to promote managers to value the natural environment where they operate and develop the responsibility to sustain it ([1], [2]). Among the key agents in society development the role of universities is highlighted, due to education is essential for ensuring future business leaders that engage with issues beyond a mere profit maximization ([3]).

Consequently, universities face growing social pressures to respond to the sustainability agenda ([4]). To this end, it is crucial to redesigning curriculum structure, content, and pedagogies that allow to transform actual learning into an education for sustainable development ([4], [2]). In this line, according to the Principles for Responsible Management Education (PRME) established by United Nations Global Compact in 2014, the willingness to progress in the implementation of academic activities and curricula concerning sustainability values is crucial for ensuring a future with socially committed managers.

Unfortunately, the incorporation of sustainability contents and practices in higher education is still considered as a tough challenge, and the actual outcomes are still far from the desired image of a higher education that truly boosts sustainability development ([6],[7],[8])). Focusing on the Business Management field, the degree of integration of sustainability in the various disciplines that ground the company is still very limited, and scholars warn about the little progress achieved in the transformation of the curricula of subjects related to Business ([8]).

Due to the need of engaging higher level education institutions to embrace sustainability as a core element of Business curricula worldwide, Management education literature has examined barriers and success factors to successfully integrate sustainable development in universities, mainly focusing on the cases from the view of the manner in which the institution should formalize their commitment to sustainable development and its mainstreaming ([6],[10],[3]). However still little is the knowledge regarding on the students view on the importance of sustainability for their education and to what extent they agree with the level of learning they receive in this regard ([11]).

Under this context, this study aims to explore students’ perception of the degree of integration of sustainability issues in the curricula of the different subjects related to Business disciplines of the University of Almeria (UAL). Specifically, our sample comprises the responses of 329 students enrolled in different undergraduate and master level degrees of the Faculty of Business Economics and Management (Accountability, Marketing, Business Administration, Economics, etc.). The UAL can be regarded as an interesting research context because sustainability is a central pillar of its strategic
plan of action, and the Faculty of Economics and Business Studies stands out for being the most important in terms of the number of students and degrees offered.

This study contributes to the scant literature regarding students interest in learning about sustainability, and the level of importance attributed to having sustainability related knowledge and skills to find a job. Taken all together, our results confirm that despite the importance apparently attributed to sustainability by the UAL, its integration into curricula is still limited and major curricula transformation is needed to train students as future responsible leaders.

2 SUSTAINABILITY IN HIGHER EDUCATION CURRICULA: A SYNTHESIS OF THE SPANISH CONTEXT

In Spain there is not a specific program that fosters sustainability in universities, as it happens in other countries like Sweden or the Netherlands, and each university develops its initiatives regarding its own criteria ([10]). However, it is worth noting that in September 2002 the Conference of Rectors of Spanish universities (CRUE) approved the creation of a working group of Environmental Quality and Sustainable Development oriented to boost the integration of sustainability in universities. In 2005 this group developed a set of criteria to guide universities to promote sustainability in higher education curricula. Among the guidelines included, the development of resources and materials that support the curricular sustainabilization of the courses is highly recommended ([12]).

Consequently, Spanish universities, like the University of Almería (UAL), are starting to undertake several initiatives to activate the process of “greening” the curricula of the disciplines taught. In this regard, the UAL states that the development of capabilities and skills related to sustainability is a key part of its strategic plan of action. In particular, its strategic plan stands out the importance to create the conditions needed for favoring the commitment of the university community with sustainability and social responsibility. In addition, sustainability plays a key role in the generic competences promoted by the UAL, for instance: competence 8 “ethic commitment” and competence 10 “social competence and global citizenry”. Another aspect that is worth to mention is the currently creation of a Commission of Environmental Sustainability with the aim to further develop, among other actions, its Environmental Sustainability Plan that pursues the commitment and increase of the awareness of teachers, students, and the administrative staff of the campus.

In spite all these initiatives for the moment, the explicit desire of the UAL in promoting the education concerning sustainability is not along with a guide or manual that indicate in a more specific manner the contents needed for the measurement and assessments of its adequate learning. In addition, despite the emphasis showed by the UAL in sustainability, the presence of sustainability issues in the actual business curricula is quite scarce. Hence, it would be interesting to delve further in the knowledge the students of Almeria have regarding sustainability, the importance given to this issue and the level of agreement on the contents concerning sustainability they receive.

3 METHODOLOGY

To reach the research objective of this study, students’ perception of the degree of integration of sustainability issues in the curricula, an online survey was performed. The fieldwork was conducted both undergraduate and graduate students of the different courses and degrees from the Faculty of Economics and Business Studies at the UAL, specifically: Degree in Administration and Business Management, Degree in Economy, Degree in Finance and Accounting, Degree in Marketing and Market Research and Degree in Tourism, during the months of February and March 2017. Students were contacted by email and asked to participate on the online survey. To avoid self-selection bias (i.e., students concerned about sustainability issues), students were told that the research project was about teaching methods in general. The survey is structured in five main sections and includes a total of seven research questions (Table 1).

---

1 [http://cms.ual.es/UAL/planestrategico/](http://cms.ual.es/UAL/planestrategico/)
### Table 1. Structure of the online survey

<table>
<thead>
<tr>
<th>Sections</th>
<th>Questions</th>
<th>Response type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance of sustainability knowledge for work</td>
<td>Q1</td>
<td>5 point Likert scale</td>
</tr>
<tr>
<td>Attention to sustainability issues in teaching</td>
<td>Q2, Q3</td>
<td>5 point Likert scale</td>
</tr>
<tr>
<td>Usage and preferences of teaching materials for the sustainability learning</td>
<td>Q4, Q5</td>
<td>Multiple choice</td>
</tr>
<tr>
<td>Sources of sustainability knowledge acquisition</td>
<td>Q6</td>
<td>Multiple choice</td>
</tr>
<tr>
<td>Attitudes toward sustainability learning</td>
<td>Q7</td>
<td>5 point Likert scale</td>
</tr>
</tbody>
</table>

The sample involves 329 students, of which 56% were women and 44% were men. The average age of the students was 23 years. According to the type of degrees and academic year of the students (Figure 1) it is observed that most of the students who answered the survey were studying the degree on Business Administration (50%). This is not surprising since Business Administration is the degree with the greatest number of students in the Faculty. In the remaining degrees the response rate was: 14% in the degrees of Marketing and Market Research, and Finance and Accounting, respectively; and 11% for both Economics and Tourism degrees. Post-graduate students (master) represents 18.4% of the overall sample. Regarding the academic year, the sample was fairly homogeneous: 23% first-year students, 17% second-year students, 19% third-year students, 23% four-year students and 18% master student.

![Figure 1. Descriptive statistics degrees and academic year](image)

4 RESULTS

4.1 Relevance of knowledge about sustainability for future work

Results reveal that in general students think knowledge about sustainability is relevant in order to find a job in the future (Figure 2). However, the perceived importance of such knowledge varies among the different functional areas of the company. Regarding finance and accounting, 40% of the students believe it is important or very important to have knowledge about sustainability issues whereas the 35% perceives it is not important. These are the lowest perceptions of importance compared to the rest of functional areas. In economics, 64% of the students believe it is important or very important to have knowledge about sustainability issues, in management this percentage rises up to the 74% and in marketing it reaches the 76% of the sample. These results are in line with past company sustainability strategies, focused mainly in communication campaigns (i.e., greenwashing). However, it is relevant that students perceive sustainability is important for accountability and finance, given that an accurate record of the environmental and social costs of the company activities becomes necessary if sustainability is pursued.
4.2 Students perception of attention devoted to sustainability issues in teaching

In order to discover students’ perceptions about the importance that sustainability issues receive within their degrees, several questions were made. The first one was related to the attention that sustainability issues were receiving in different teaching areas (which are related with functional areas of the company). Regarding the results (Figure 3), it is possible to note how only 13% of the students perceived sustainability issues were receiving much or constant attention in finance and accounting, with 26% declaring it receives little attention and 37% stating sustainability issues do not receive attention at all. In economics, 25% of the participants think sustainability receives high levels of attention, compared with a 38% of students that perceive that issues receive little or no attention at all. However, a different pattern emerges for the area of business administration, with the 40% of the students perceiving sustainability issues are given high levels of attention vs. 27% perceiving they receive little or no attention. Last, students perceive marketing is the area where most attention is paid to sustainability issues (43% high vs. 24% low level of attention).
In addition to the attention received by sustainability issues, it is also important to discover whether students perceive these issues are important for teachers or not. Even in the case that a lot of attention is paid to sustainability issues, if students perceive it is not important for professors, they may believe it is not something that needs to be considered in their future work. In general, outcomes are quite similar to those regarding the attention students perceived to sustainability contents. Hence, the majority of the students perceive that professors from functional subjects are placing little interest on sustainability issues. Along these questions, another question was included with the aim to observe the attention students perceived on professors for the rest of subjects that were not part of the company functional areas, such as mathematics. Results for the rest of subjects, such as mathematics, only 10% of the students perceived professors from other areas are placing a lot or constant attention to sustainability issues. On the other hand, the 68% of the sample believed sustainability issues are little or not important at all for professors of other subjects.

![Figure 4: Student responses to (Q3): The degree of importance you think your teachers give to issues related to sustainability in the following areas (1 being "nothing important" and 5 "is something very important")](image)

It is also important to identify students’ perceptions on the teaching materials used by professors for improving sustainability knowledge in university’s courses. This will help to achieve a better understanding of sustainability teaching techniques at the degrees from the Faculty. The findings for that question (Figure 5) show that the method preferred by professors—according to students perceptions—for including sustainability issues consist in examples set by themselves (61%), followed by case studies (53%) and exercises (41%). Only 25% and 24% of the sustainability content comes from compulsory and complementary bibliography of the subjects respectively. These results may be indicative that professors are putting more emphasis on teaching about sustainability issues than it is reflected in books about the diverse subjects offered by the Faculty of Economy and Business Studies. The reasons for that can be twofold: first, there are not enough teaching books considering sustainability issues on the different areas of economy and business studies, or second, professors are not aware of them.
Finally, students were asked about their preferences on the teaching materials most suitable for the learning of sustainability contents in class (Figure 6). Results show that case studies (76%), examples set by professors (70%) and exercises (68%) are by far the most preferred options. The percentages obtained here are indicative that professors are treating sustainability issues in a similar way than it is requested by students, however, more attention should be paid to case studies. Case studies are a good means to teach about sustainability issues given that they may show students how to do things or how not to do things in company settings in order to be sustainable and succeed. Regarding bibliography, students prefer that sustainability issues are included in compulsory (37%) rather than complementary (18%) teaching manuals of their courses. This is indicative that students from our sample are eager on learning about sustainability issues as a core element in economics and business rather than a complementary one.

**4.3 Students knowledge about sustainability**

It is important to discover the main sources that students employ for acquiring knowledge about sustainability issues. Sustainability itself is a complex topic and not every source is able to provide accurate, reliable and clear information, giving place to common errors and misunderstandings among average citizens. Hence, it is desirable that students acquire most of their knowledge about sustainability issues from academic sources, even though it is also good from them to be able to compare and complete this information with the one that comes from other non-academic sources. Regarding the findings from that question (Figure 7), more than two-thirds of the sample (78%) mention media as a sustainability knowledge source. University scores second among sustainability knowledge source (48%), followed by books (33%), friends and family (31%). These results warn about an over-reliance in media communications. Unfortunately, the questionnaire did not accounted for different media such as television, press or the Internet and even less the specific channel. Sustainability issues have been treated in very different ways in traditional media and regarding the Internet, hoaxes have become a commonplace. Students need to have a different main source for sustainability knowledge and this should be the University, in addition, professors must help students to develop the competences needed to correctly evaluate the information and discriminate between more vs. less credible sources.
A. It is interesting for me to learn about sustainability in the company
B. I would like teachers to include more topics related to sustainability in their subjects
C. I think learning about sustainability is very much needed today
D. Knowledge of sustainability is not useful for my future job
E. Employers appreciate the sustainability knowledge of their future workers
F. If students do not learn about sustainability, they will not be able to make the world a better place

Figure 7: Student responses to (Q6): From what source did you get your knowledge of sustainability?

4.4 Students Attitudes toward sustainability learning

Last, but not least, a battery of 6 items were used to measure students attitudes toward learning about sustainability issues, and their perceived importance for their future career development. This is important since a good predisposition of students, in terms of attitude and perceived usefulness of the knowledge, may make it easier to improve sustainability teaching and may make students feel better with the content of their courses (Figure 8).

In general, students from the different degrees of the Faculty of Economics and Business Studies are very interested in learning about sustainability within the company (80% of agree or strongly agree). In addition to that, 69% would like professors to include more topics related to sustainability in their subjects. Taken together, the results from these statements show a great willingness to learn about sustainability issues.

Moreover, the vast majority of the sample (82%) thinks that learning about sustainability is much needed. On the other hand, the 71% of participants disagreed or strongly disagreed with the fact that knowledge about sustainability is not useful for future job development. These results show that students are not only interested in sustainability per se, but they are convinced that such knowledge will play an essential role for their future career development. However, this does not fully translate into a belief that employers are giving enough value to knowledge about sustainability issues: 38% agree or strongly agree with this item. This reflects that students perceive a mal adjustment between the real importance of sustainability and the relevance that current employers place on it.

Regarding the item: “if students do not learn about sustainability they will not be able to make the world a better place”, most students agree or strongly agree (73%). Overall these findings provide support for an enhancement of sustainability teaching at the degrees of the Faculty of Economics and Business Studies.
5 CONCLUSIONS

In the light of the challenge that sustainability represents for future world, universities need to adapt and play a critical role by forming the future citizens accordingly with sustainability requirements. However, the extent into which these challenge has been faced is still uncertain. To help to address this issue, current work offers a study of the integration level of sustainability into the different degrees of the Faculty of Economics and Business Studies from the UAL. This is especially important given that these students may lead and manage different aspects of organizations in the future, and the role of different organizations is essential to sustainability achievement.

Overall, our results are encouraging since they show students are quite fond of sustainability issues and willing to receive more formation on them since they believe it can make a difference for their future career development, especially for those aiming to work in management and marketing areas. However, they still perceive actual employers are not paying enough attention to this knowledge about sustainability when hiring people. The perceived degree of attention devoted to sustainability issues during the courses and by professors can be improved, especially on accounting and finance and economics. These results show that the perception of students of the sustainability knowledge importance for their future job development is somewhat related with the importance that their professors place in such issues.

Regarding the teaching materials into which sustainability issues are introduced to students, there is also room for improvement and results point to a lack of bibliography and case studies. This is important since nowadays the vast majority of knowledge about sustainability held by our students comes from the media, with the aforementioned disadvantages that this implies.

Given the perceived differences among sustainability importance and relevance for future work among functional areas of the company, further research should account for inter-degree differences. That is, given that the faculty offers degrees in: accounting and finance; economics; business management; marketing; and, tourism it would be useful to perform separate analysis in order to consider if there is a need to put more emphasis on sustainability issues for one degree over the rest. Future work also should consider differences between different relevant student segments of interested vs. non-
interested on sustainability issues or those who perceive vs. non perceive sustainability knowledge relevant for their future career development, and achieve a deeper knowledge about the demographic, psychographic and behavioral characteristics of such students. This would make it possible to offer a more focused a targeted plan of action in order to improve sustainability teaching among the different degrees of the Faculty of Economics and Business Studies.

REFERENCES


