

Business sustainability and undergraduate management education: an Australian study

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Published online: 8 January 2011
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Abstract The academic literature arguing that there is an urgent requirement for businesses to become more sustainable is rapidly expanding. There is also a demonstrated need for managers to develop a better understanding of sustainability and the appropriate strategies required to improve business sustainability. In addition, there have been international calls for educators to address sustainability in their programs. The aim of this study was to investigate the extent to which business sustainability was incorporated into undergraduate business and management courses in Australian universities. The high percentage of international students enrolled in these courses suggests our findings have implications beyond the Australian context. Students currently studying these courses are the managers and leaders of the future and their knowledge and skills will influence the extent to which business sustainability will be achieved. The findings demonstrate that more than half of Australian universities did not explicitly identify sustainability as part of their business/management curricula and those universities that did address sustainability did so, in most cases, only in a limited way.

Keywords Sustainability education · Undergraduate management education · Sustainable business · Sustainable management

An earlier version of this paper was presented at the University Learning and Teaching Futures Colloquium, Armidale, 8–9 September, 2010.

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Introduction

A rapidly expanding academic literature highlights the urgency for businesses to become more sustainable (see, for example, Aras and Crowther 2009; Dunphy et al. 2007; Shrivastava 2008; Stead and Stead 2004; Stubbs and Cocklin 2007). However, within this literature there is no agreement about what constitutes sustainability and the subject is being addressed by numerous disciplines (Bebbington 2001; Pezzoli 1997; van Marrewijk and Werre 2003). In addition, the motivations for pursuing business sustainability vary from instrumental, self-interested concerns such as compliance or profit-driven motives through to more altruistic concerns such as the welfare of future generations or issues of social justice (Crane and Matten 2007; van Marrewijk 2003).

Despite the different definitions and approaches to sustainability, most academic researchers acknowledge the importance of the ‘Brundtland Report’ and use its definition of sustainable development as a starting point for further investigation. This report defined sustainable development as ‘development which meets the needs of the present without compromising the ability of future generations to meet their own needs’ (Brundtland 1987:8) and draws attention to three aspects of sustainable development: environmental protection, economic growth and social equity (Aras and Crowther 2009). Sustainability in a business context has been defined by Dyllick and Hockerts (2002: 131) as ‘meeting the needs of a firm’s direct and indirect stakeholders..., without compromising its ability to meet the needs of future stakeholders as well’. Galbreath (2009: 306) is more specific: ‘sustainability [is] a business approach that seeks to create long-term value for stakeholders by embracing opportunities and managing risks associated with economic, environmental and social developments’. A sustainable organisation, according to Benn and Dunphy (2004), in addition to focusing on economic performance, actively supports the ecological viability of the planet and its species, contributes to equitable and democratic practices, and social justice.

This research takes as its starting point the view that sustainability, understood as encompassing economic, social and environmental dimensions, is one of the most important and urgent issues facing businesses (and society) today (Dunphy et al. 2007: 3). Building upon previous research we argue that there is a need for managers to increase their understanding of business sustainability and the strategies that can be developed to make their organisations more sustainable. In this study we examined the extent to which undergraduate business and management courses (sometimes referred to as degrees or programs) offered by Australian universities explicitly stated that sustainability was addressed in their undergraduate curricula. Students currently studying these courses are the leaders and managers of the future and their knowledge and skills will significantly influence the extent to which business sustainability can be achieved. This paper reports the results of our investigation and aims to stimulate discussion about how business sustainability is being addressed within management education and whether it is currently meeting internationally identified standards.

The importance of sustainability in business education

Previous research has demonstrated that many managers believe they do not have the skills necessary to make their organisations more sustainable. In 2002, research revealed that of 114 companies from the Global 1,000 list of companies, 94% believed a business sustainability strategy could result in financial benefits, but only 11% actually implemented

one (Ernst and Young, cited in van Marrewijk 2003). One reason for this low percentage of implementation, according to van Marrewijk, was likely to be a lack of understanding about what constitutes practices and initiatives that promote sustainability. Given the attention that has been focussed on business sustainability since 2002, it might be expected that managers are now better informed about how to make their organisations more sustainable. Recent research, however, suggests this is not the case. A survey by KPMG International (2008) found that for the large majority of companies understanding how to make their businesses more sustainable was a challenge. The areas that posed the greatest difficulty for approximately 80% of companies included identifying and prioritising issues, developing strategies and policies, and measuring performance. This finding is consistent with anecdotal evidence from our consulting work that suggests there is limited understanding of how to make business more sustainable. For example, the owner of a small business in Victoria, Australia, commented: ‘My aim is to grow my business in a sustainable way, but I do not have the knowledge to do it. I have reduced waste and use more recycled materials, but I would like to implement a more comprehensive approach to make my business model more sustainable.’ Similarly, the Director of Sustainability of a large manufacturing company in New South Wales, Australia, stated: ‘For us, sustainability is important, both at the strategic and the operational levels. That is why we created the position Director of Sustainability about six months ago. However, for me, as Director of Sustainability, the challenge is to identify the areas that need a greater sustainability focus, to develop appropriate strategies and to oversee their implementation.... It is a very complex process.’ This anecdotal evidence is supported by a study from the Australian Industry Group and Sustainability Victoria (2007) which found that most companies ‘have a limited understanding of environment issues’ (p. 22). In particular, companies were poorly informed about strategies for managing climate change and reducing greenhouse gas emissions. In her preface to this study, Heather Ridout (CEO of the Australian Industry Group) stated that ‘companies clearly need more information on how they can improve sustainable practices’ (p. 5).

One way to address the identified lack of understanding of business sustainability identified by the Australian Industry Group and Sustainability Victoria (2007) and KPMG International (2008) could be through management education. Sustainability literate people have been defined as those who ‘understand the need for change to a sustainable way of doing things; have sufficient knowledge and skills to decide and act in a way that favours sustainable development; [and are] able to recognise and reward other people’s decisions and actions that favour sustainable development’ (Forum for the Future 2004: 9).

It has been argued that higher education providers have a significant responsibility for promoting sustainability (Brunton 2006; Davies et al. 2003; International Association of Universities 2006; Reid and Petocz 2006; Sibbel 2009). The Association of University Leaders for a Sustainable Future (1994) outlined the major role universities have in achieving the outcomes identified in their 10 Point Action Plan (the Talloires Declaration). This Action Plan identified the urgent need to address problems in order to create ‘an equitable and sustainable future for all humankind’ (p. 1). Universities that are signatories agree to ‘create programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional students’ (p. 1). Issues related to education for sustainability were given prominence at the UN Conference on Environment and Development in Rio de Janeiro in 1992 where Agenda 21 was endorsed. This document identified a reorientation of education towards sustainable development, increased public awareness of environmental issues and promoted environmental training as being critical to address environmental and development issues (Holdsworth et al. 2008;

Reid and Petocz 2006). More recently, the call for management education to include business sustainability was articulated in the United Nations' (2008) Principles for Responsible Management Education initiative. The first principle requires management educators to 'develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy' (p. 2).

If future managers are to be equipped to meet the challenges and take advantage of the opportunities offered by sustainable management, then undergraduate management education must include the study of sustainability (in all its complexity) as an explicit part of the curriculum. Although there has been some research into sustainability education in MBA programs (e.g. Christensen et al. 2007; Tilbury et al. 2004) and we identified one study that focussed on the extent to which undergraduate marketing programs included stand-alone ethics, social responsibility and sustainability subjects (Rundle-Thiele and Wymer 2010), we were unable to identify any research that focussed specifically on the extent to which sustainability education was incorporated into undergraduate management education across universities.

We were specifically interested in undergraduate management education since most students enter the workforce prior to undertaking postgraduate education. The Graduate Destinations Report for 2008 (a study of the activities of new higher education graduates around four months after the completion of their qualifications) found that Australia-wide 78.3% of business studies graduates were either employed full-time or available for full time employment. Thus, over three quarters of students graduating with undergraduate business/management degrees had either entered the full-time workforce or were available for full-time employment. Moreover, 62.7% of respondents identified their undergraduate business qualification as either a formal requirement for their employment or important to it, and a further 21.6% indicated it was 'somewhat important' to their employment (Gutherie 2009). These statistics suggest that any shortcomings in undergraduate business/management education could have widespread implications.

Method

This paper presents primary research based on document analysis using published information on universities' websites. It provides a snapshot view of the extent to which sustainability was incorporated into the information describing undergraduate business/management education in Australian universities. We searched the websites of all forty Australian universities (including Open University) in May and June, 2009 to identify undergraduate business or management courses (degrees, programs). First we located the description of each course to determine whether the term sustainability (or sustainable) was mentioned and, if so, whether the term was used in a sense that indicated a consideration of the environmental and/or social dimension of sustainability. We then searched the information describing the introductory management and/or strategic management subjects to see if sustainability was mentioned either in the subject title or the subject description. Finally, we identified the core (i.e. compulsory) and listed non-core (i.e. optional) subjects for the course to locate any other subjects that had sustainability in their titles or descriptions.

We acknowledge the limitations of the research project. The data were drawn from web-based descriptions of course and subject offerings. Since we did not interview academic advisors or course coordinators we may have overlooked relevant information about particular courses or subjects. In addition, issues relating to sustainability could have been

integrated into particular subjects (e.g. Corporate Social Responsibility) without this being mentioned in their descriptions. Since we were specifically interested in identifying the extent to which Universities' publicly available information identified sustainability as being incorporated in curricula we did not include these subjects. There could also have been subjects with a focus on sustainability offered in other faculties or departments that business and management students could have included in their study programs. Moreover, this study did not assess the potential for curriculum to contribute to learning for sustainability. This would require a more in-depth approach than was adopted in this project and requires further research which could include case studies and interviews. Nonetheless, this study is an important first step in identifying the extent to which sustainability is being addressed in undergraduate business/management education in Australia.

Findings

The research findings are divided into four sections. In the first section, the university level information is presented, followed by course level information and subject level information. More detailed analysis of subjects that addressed sustainability is presented in the final section.

University level findings

All 40 Australian universities offered at least one business/management course. In total 48 courses were identified. Twenty-three universities (or 57.5%) made no reference to sustainability in either the course information or the information relating to core and non-core listed subjects. The remaining 17 universities offered courses that did refer to sustainability with one university offering two such courses.

Course level findings

As stated above, the 40 universities offered 48 courses in business and/or management. Table 1 identifies these courses by title.

An analysis of the information describing these 48 courses indicated that only three used the term sustainability in their course descriptions. This result means that 93.75% of all business/management courses offered by Australian universities made no reference to sustainability at the course level.

Table 1 Undergraduate business/management courses by title

Name of course	Number
Bachelor of Business	23
Bachelor of Commerce	13
Bachelor of Business Administration	5
Bachelor of Management	3
Bachelor Business and Management	2
Bachelor of Business/Commerce	1
Bachelor of Business Studies	1
Total	48

Subject level findings

The information describing the listed core and non-core subjects offered in the 48 business/management courses revealed that 25 subjects contained the term sustainability either in their titles or descriptions. These 25 subjects were included in 18 different courses (offered by 17 universities).

More specifically, four core subjects used sustainability in their titles (Ethics and Sustainability; Sustainable Enterprise; Sustainability in a Changing Environment and Sustainability in Global Business). A further three core subjects contained sustainability in their descriptions (but not in their titles). These seven subjects were included in seven different courses offered by seven different universities.

In addition to these seven core subjects, a number of non-core subjects also made reference to sustainability. Altogether our research identified 16 listed non-core subjects (offered by 12 different universities) with sustainability in their titles [Applied Business Innovation and Sustainability; Climate, Sustainability and Society; Corporate Sustainability; Environment and Sustainability; Environment, Technology and Sustainability; Ethics and Corporate Social Sustainability; Introduction to Sustainable Tourism Management, Management and Sustainability; Managing Sustainable Development; Regional Sustainable Development; Sustainability and Governance; Sustainable Leisure Environments; Sustainable Marketing; Sustainable Tourism (2 subjects with this title); and Tourism Management (Sustainable Directions)]. A further two listed non-core subjects referred to sustainability in their descriptions (but not in their titles).

Sustainability in subjects

A closer reading of the information describing the 25 subjects that contained sustainability in their titles or descriptions indicated that, in the majority of cases, sustainability was addressed within a single functional area or context (e.g. marketing or tourism), while 11 subjects (44%) addressed sustainability more broadly within the business/management discipline (e.g. corporate sustainability or corporate social responsibility). Table 2 summarises these findings.

Discussion

Our research findings demonstrated that 23 out of 40 universities (or 57.5%) did not include the term sustainability in any of their business/management course or subject

Table 2 Sustainability in subjects

	Single functional area/context	Discipline	Total subjects
Core subjects			(7)
Sustainability in title	1	3	4
Sustainability in description	1	2	3
Non-core subjects			(18)
Sustainability in title	10	6	16
Sustainability in description	2		2
Total number of subjects	14	11	25

information. It is therefore reasonable to conclude that business sustainability has a low profile in over half of Australian universities' business/management courses. Moreover, the 17 universities (42.5%) that did address sustainability in their courses did so, in most cases, only within a single functional area or context (e.g. Marketing or Tourism).

Of the 48 business/management courses identified, only three (6.25%) used the term sustainability in their course descriptions. Moreover, the limited number of core subjects addressing sustainability is notable. Only seven (14.58%) of the 48 courses identified included a core subject that mentioned sustainability in either the title or description. As it is only core subjects that all students study, this suggests that the majority of currently enrolled students in these courses graduate without any specific education related to business sustainability.

This research is consistent with broader research into sustainability education in higher education. Brunton (2006) found that, to date, education for sustainable development has made slow progress in higher education. Holdsworth et al. (2008) have argued that sustainability is far from being integrated throughout mainstream curricula in Australian universities, and research by Sherren (2006: 403) led her to conclude that '[o]n the whole, sustainability is not very thoroughly or uniformly integrated across Australian universities'.

On a more optimistic note, 14 of the universities in our study were institutional signatories to the Talloires Declaration as at July 2009. In becoming signatories, these universities have agreed to '[c]reate programs to develop the capability of university faculty to teach environmental literacy to all undergraduate, graduate, and professional students' (p. 1). These 14 universities have given a public commitment that all of their students will study programs that include sustainability. When we conducted our research seven of these universities did not mention sustainability in their undergraduate business/management courses or core subject information, however, they have undertaken to include environmental literacy in all their courses in the future. There were also three Australian universities' Business Schools on the list of organisations that have signed up to the UN's Principles for Responsible Management Education initiative (one offering only postgraduate courses and two offering both postgraduate and undergraduate courses). Signatories are required to provide annual reports to share information on their progress towards meeting these principles.

Our findings are not only relevant for Australia but have international implications as well. In 2009 there were 114,226 undergraduate international students enrolled in higher education in Australia. Almost half of these enrolments (48.4%) were in the fields of Management and Commerce (Australian Education International 2010). This cross-border exchange in education and international student mobility brings important benefits such as the transfer of ideas and opportunities as well as improved cultural awareness (Centre for International Economics 2008). However, it also means that any shortcomings in university education have implications at the international level since many of these students return to their home countries and/or work in multinational companies. The limited coverage of sustainability identified in our study will influence the way sustainability is being understood by future managers and may impact on how it is being dealt with at an international level.

Conclusions and implications

Our snapshot view of the extent to which sustainability concerns were addressed in undergraduate management education in Australia demonstrated there is room for

improvement. As we approach the middle of the UN's Decade of Education for Sustainable Development (2005–2014), the aim of having all educators include sustainable development concerns and goals into their curricula is far from being achieved in the undergraduate management discipline in Australia.

As outlined above, the United Nations' first principle for Responsible Management Education is to 'develop the capabilities of students to be future generators of sustainable value for business and society at large and to work for an inclusive and sustainable global economy' (2008: 2). If this principle is accepted, our research demonstrates that in Australia most undergraduate management education is falling well short of fulfilling this responsibility. The findings draw attention to the urgent need for curriculum review and development to include a robust coverage of business sustainability.

The complexity involved in introducing and/or enhancing education for sustainability into undergraduate management curricula should not be underestimated. Research by Leal Filho (2000) identified recurring themes to explain why sustainability is not being integrated throughout higher education curricula. These themes relate to both facts and perceptions: sustainability is not a subject *per se* because it is too abstract, too theoretical and too broad; there is a lack of qualified staff to teach it; the resources needed to incorporate sustainability cannot be justified; sustainability has no scientific basis and it is a fashion/fad. More recently, Holdsworth et al. (2008: 138) identified a lack of targeted programs and resources; academic indifference or resistance and the limited number of qualified academics as being obstacles to integrating sustainability education into curricula.

This paper provides a starting point for further discussion and debate about incorporating business sustainability into management education. The challenges that need to be resolved when incorporating business sustainability into undergraduate management education provide an exciting motivator for curriculum review and renewal, as well as a fertile area for both empirical and conceptual research.

References

- Aras, G., & Crowther, D. (2009). *the durable corporation, farnham*. Gower: England.
- Association of university leaders for a sustainable future (1994). *The talloires declaration: 10 point plan*. <http://www.ulsf.org/pdf/TD.pdf>. Accessed 29 Jul 2009.
- Australian Education International (2010). *Research snapshot*, Australian Government.
- Australian Industry Group & Sustainability Victoria, & Victoria, Sustainability. (2007). *Environmental sustainability and industry: Road to a sustainable future, findings of the national survey on environmental sustainable practices*. North Sydney NSW: Australian Industry Group.
- Bebbington, J. (2001). Sustainable development: A review of the international development, business and accounting literature. *Accounting Forum*, 25(2), 128–157.
- Benn, S., & Dunphy, D. (2004). Can democracy handle corporate sustainability? Constructing a path forward. In A. Griffith (Ed.), *Corporate sustainability: Governance, innovation strategy, development and methods* (pp. 141–155). Sydney: Content Management.
- Bruntdland, G. (Ed.). (1987). *Our common future: The world commission on environment and development*. Oxford: Oxford University Press.
- Brunton, K. (2006). Education for sustainable development: Principles for curriculum development in business subject areas. *Investigations in University Teaching and Learning*, 3(2), 36–46.
- Centre for international economics (2008). *APEC and international education*, Commonwealth of Australia.
- Christensen, L. J., Peirce, E., Hartman, L. P., Hoffman, W. M., & Carrier, J. (2007). Ethics, CSR, and sustainability education in the Financial Times top 50 business schools: Baseline data and future research directions. *Journal of Business Ethics*, 73(4), 347–368.
- Crane, A., & Matten, D. (2007). *Business ethics* (2nd ed.). New York: Oxford University Press.
- Davies, S., Edmister, J., Sullivan, K., & West, C. (2003). Educating sustainable societies for the twenty-first century. *International Journal of Sustainability in Higher Education*, 4(2), 169–179.

- Dunphy, D., Griffiths, A., & Benn, S. (2007). *Organizational change for corporate sustainability* (2nd ed.). London: Routledge.
- Dyllick, T., & Hockerts, K. (2002). Beyond the business case for corporate sustainability. *Business Strategy and the Environment*, 11(2), 130–141.
- Forum for the Future. (2004). *Sustainability literacy: Knowledge and skills for the future*. London: Report from Forum for the Future's consultation workshop.
- Galbreath, J. (2009). Addressing sustainability: A strategy development framework. *International Journal of Sustainable Strategic Management*, 1(3), 303–319.
- Guthrie, B. (2009). *Graduate destinations 2008: The report of the graduate destination survey*. Melbourne: Graduate Careers Australia.
- Holdsworth, S., Wyborn, C., Bekessy, S., & Thomas, I. (2008). 'Professional development for education for sustainability: How advanced are Australian universities?'. *International Journal of Sustainability in Higher Education*, 9(2), 131–146.
- International Association of Universities (2006). *IAU conference: Education for a sustainable future. conference general report*. www.unesco.org/iau/sd/sd_confprague.html. Accessed 20 Sept 2009.
- KPMG International (2008). *A survey into the growth and sustainability issues driving consumer organizations worldwide*. KPMG/CIES survey.
- Leal Filho, W. (2000). Dealing with misconceptions on the concept of sustainability. *International Journal of Sustainability in Higher Education*, 1(1), 9–19.
- Pezzoli, K. (1997). Sustainable development: A transdisciplinary overview of the literature. *Journal of Environmental Planning and Management*, 40(5), 549–574.
- Reid, A., & Petocz, P. (2006). University lecturers understanding of sustainability. *Higher Education*, 51(1), 105–123.
- Rundle-Thiele, S., & Wymer, W. (2010). Stand-alone ethics, social responsibility, and sustainability course requirements: A snapshot from Australia and New Zealand. *Journal of Marketing Education*, 32(1), 5–12.
- Sherren, K. (2006). Core issues: Reflections on sustainability in Australian university coursework programs. *International Journal of Sustainability in Higher Education*, 7(4), 400–413.
- Shrivastava, P. (2008). Sustainable organisational technology. *International Journal of Sustainable Strategic Management*, 1(1), 98–111.
- Sibbel, A. (2009). Pathways towards sustainability through higher education. *International Journal of Sustainability in Higher Education*, 10(1), 68–82.
- Stead, W. E., & Stead, J. G. (2004). *Sustainable strategic management*. New York: M.E. Sharp, Armonk.
- Stubbs, W., & Cocklin, C. (2007). Teaching sustainability to business students: Shifting mindsets. *International Journal of Sustainability in Higher Education*, 9(3), 206–221.
- Tilbury, D., Crawley, C. & Berry, F. (2004). *Education about and for sustainability in Australian business schools*, Report prepared by the Australian Research Institute in Education for Sustainability (ARIES) and Arup Sustainability for the Australian Government of the Environment and Heritage.
- UN Decade of Education for Sustainable Development 2005–2014 <http://www.unesco.org/en/esd>. Accessed 16 Oct 2009.
- United Nations Global Compact (2008). *Principles for responsible management education*. <http://www.unprme.org/index.php>. Accessed 12 Oct 2009.
- van Marrewijk, M. (2003). Concepts and definitions of CSR and corporate sustainability: Between agency and communion. *Journal of Business Ethics*, 44(2–3), 95–105.
- van Marrewijk, M., & Werre, M. (2003). Multiple levels of corporate sustainability. *Journal of Business Ethics*, 44(2–3), 107–119.