



Integrating sustainability philosophy into business curriculum

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Abstract

This paper examines the status of sustainability integration in business schools and colleges as part of business education and training - curriculum. The authors argue that there is a need for sustainability and because business schools and colleges and business education play such an important role in value creation, then they represent areas of vested interest when it comes to sustainability practices. While the need for sustainability as an encompassing construct is asserted in the literature, the authors argue that its lack of integration in business programs and curriculum stems from five major factors: knowledge and understanding of sustainability, beliefs underlying sustainability as akin to science rather than business education, the influence of organizational culture and leadership, marketability and change, and costs, accreditation and other limitations. Sustainability inclusion practices and opportunities are discussed and the implications for business schools and colleges. The authors discuss how business schools and colleges can develop sustainability culture and programs, and provide several recommendations for integrating the sustainability philosophy into business programs and curriculum for 21st century success.

Keywords: Sustainability Mindset; Economic Sustainability; Sustainability Culture; Sustainability Inclusion; Sustainability Philosophy

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1. Introduction

In today's economies where the majority of people are engaged in value-creating activities for survival and progress, business has come to mean more than just work for households, communities, and government; it is a vital part of creating improved standards of living and opportunities that will transform an entire society and affect its future. Therefore, the vested interest that stakeholders have in quality business education becomes apparent through the effect and influence of the skills, practices, and experiences gained in business schools and colleges on collective well-being and welfare provisions. This vested interest in business education is further attested to by the increasing role that business schools and colleges play in shaping society and its institutions through theory and practice and the thousands of graduates that enter into the global workforce annually. This importance has been underscored by Cavico, Mujtaba, and McFarlane (2010), and McFarlane (2012), as they contend that business schools and colleges are major globalizing influences and trend setters that have become so critical to community and national development through their impacts on industry, trade, and leadership. This is further confirmed by Terhune (2011) who comments on the continued popularity of business degrees and business disciplines in higher education studies and economy.

As Haptipoglu, Ertuna and Sasidharan (2013) note, "There is a requirement for human resources that can assume effective leadership in sustainable development" (p. 1), and business schools and colleges are providing a significant percentage of the labor force in the forms of ordinary workers, managers, and leaders of business and social organizations that affect society's value stream. As icons of value creation and advocates of value-driven management practices and strategies, business schools and colleges hold a prominent place as pioneers of progress and change, and there is a change towards more sustainable practices and a future built on sustainability that they must now embrace and advocate. A handful of business schools and colleges across the globe have initiated this transformation in education and training, especially in Australia and some parts of Europe including Sweden, Great Britain, and Switzerland. However, business schools and colleges on the American landscape are lagging far behind and many seem reluctant to integrate even a single sustainability course into their curriculum, especially where the Master of Business Administration (MBA) degree is concerned.

The Sustainability Philosophy is best reflected in practices and principles that effectively consider and incorporate knowledge and understanding of business processes, activities, and resource considerations that are geared toward improving efficiency and lead to continuance and improvement in production and consumption processes, or in the creation of goods and services, the value creation and value-adding processes that we engage in meeting human needs and wants across all spectrums and sectors of society. This entails considering how to optimally use knowledge, people, systems, processes, and all our resources in ways that produce the best outcomes for mankind and other living systems in economically, socially, and ecologically efficient ways. The Sustainability Philosophy entails recognizing the interrelatedness and interconnections between human activities and the environment and striving for a balance in all activities and pursuits so that as we prepare for the present, we are also preparing for the future. Business schools and colleges as value-creating entities must embrace this broad philosophy of progress.

2. The need for sustainability integration and practices

As societies shift towards having better quality of lives in a more sustainable world (Haptipoglu et al., 2013), an education system that embraces the values of sustainability becomes more essential in meeting current and future challenges. This education must necessarily be both concurrent and progressive, reflecting today's needs and tomorrow's challenges. There is no doubt that sustainability as a way of life and culture of value creation will become increasingly important over the next several decades, and the trends in operational and marketing activities across industries are evidence of this, especially as more companies sign on to the green bandwagon and consumers become more educated and adamant about saving the environment, using safer products, and are expressing greater interest in energy saving devices and opportunities.

According to Boutou (2013) the globalized 21st century has brought humankind a series of planetary challenges like illiteracy, environmental degradation and unequal wealth distribution which deteriorate the quality of human, animal and plant life to a great extent, and these create further challenges and give rise to sustainability as a solution. As our needs continue to exceed our available means and scarcity drives us to increasing economization and conversation strategies and practices to sustain ourselves and survive global economic and social change, sustainability will become more important as a culture and philosophy to individuals, organizations, and society. As such, Haptipoglu, Ertuna and Sasidharan (2013) feel that higher education institutions should play an active role in transforming and preparing future citizens and professionals to face these challenges of 21st century.

While sustainability is seen as a growing imperative in higher education in the United States of America (Calder and Dautremont-Smith, 2009), business schools and colleges are especially slow in integrating sustainability philosophy and concepts into their programs and curriculum, especially in MBA programs which are the hallmark of business schools and business education. In fact, with the slow pace of change or integration (Chalkley et al., 2010), there seems to be indication of a reluctance to initiate changes and adopt practices of sustainability stemming from an uncertainty about the future of business education, and especially the MBA. Perhaps, today's business school program developers, directors, and managers are still searching for other rationale for change and are simply reluctant to add to or deduct from programs that are doing well in terms of enrollment and meeting their schools' bottom lines. However, current models and programs that are highly common and similar across business schools and colleges are not sustainable for the future because of declining value and lack of product uniqueness and appeal.

3. The challenges of integrating sustainability

Sustainability as practice and philosophy remains a difficult challenge for institutions and government as they seek to educate their members and citizens on the need for economical, ecological, and social sustainability. McFarlane and Ogazon (2011) have specifically identified ten (10) challenges of sustainability education that are important to consider when integrating sustainability philosophy into curriculum. These challenges include: (1) many stakeholders are only recently beginning to think about sustainability as it

pertains to our relationship with our environment, our resources, and our overall well-being, progress, and survival; (2) sustainability education occupies a small part of overall educational pedagogy across fields and spectrum of knowledge, thought, and learning; (3) sustainability has little or no meaning to ordinary citizens; (4) there is a lack of inclusion of education for sustainability (EFS) and sustainability in education (SIE) as parts of our regular public school systems, and even and part of the general education curriculum of colleges and universities; (5) there are natural and socially-imposed barriers owing to our nature as individuals and groups, our social, cultural, economic, and political-legal systems, and our differing perspectives arising out of these factors coupled with our unique individual views about what is important; (6) we are currently too overburdened with political economy and governmental problems and challenges and policies that lead to inaction; (7) personal individual problems keep us focused on other issues of survival and personal growth; (8) our education acts as barriers to sustainability integration because our education system has not necessarily been designed to embrace the sustainability challenge, but rather to address economic and wealth issues, and has been subordinate in its function to the power and desire of those who are the major benefactors of resource overexploitation, excess consumption, and mass production that affect our environment; (9) our culture is a barrier to sustainability integration because it praises the superiority of humankind over the natural and wild life worlds, and this has been contradictory to sustainable practices and worldviews; and (10) our appreciation of science, knowledge of science, scientific and technological literacy, understanding of the nature of science (NOS) and awareness of science (AOS), nature of technology (NOT), and economy and politics affect how we view sustainability and its importance.

The authors feel that there are five major challenges to integrating sustainability philosophy, principles, and practices into business schools and colleges and their curriculum and programs. These challenges are reflected in the current state of knowledge and understanding regarding sustainability, its philosophy, scope, meaning and practice, the treatment of sustainability as a construct of the physical and geographical sciences rather than as a broad-scope and business oriented subject matter, prevailing culture and leadership in organizations, marketability factors and the uncertainty that change brings, and the costs of inclusion along with accreditation and other limitations.

3.1. Knowledge and understanding

The majority of citizens in the United States and around the globe know very little about sustainability as a practice and philosophy, and embracing sustainability practices highly depends on understanding what sustainability entails (McFarlane and Ogazon, 2011). As such, McFarlane and Ogazon (2011) believe that individuals, business organizations, and government must foster a broad definition and understanding of sustainability by defining sustainability as involving much more than environmentalism and going green (Cloud, 2009); it must include the practices that businesses engage to achieve greater efficiency and to maximize the value of the firm. We must understand what sustainability entails and this requires better understanding of the nature of science, environment, and their relationships to us and our progress and survival. Furthermore, as McFarlane and Ogazon (2011) note, we need technology and scientific literacy to fully appreciate the challenges that demand a sustainability approach to the creation of value and use of

resources. Individuals who are unable to define or understand what sustainability means and encompasses will be unable to appreciate sustainability as anything else other than another social burden or political movement. Currently, the term technology remains elusive to majority of citizens, and many who are aware of the term have no fundamental knowledge of its overarching implications. This needs to change and sustainability education is the key.

3.2. Science education vs. business education

Science education has taken an interesting turn with renewed and revitalized focus on environmentalism promulgated under the “green construct.” Hodson (2011) also points to a trend towards the building of science curriculum for social activism and change as a major initiative driving interest in sustainability. There has been a focus on sustainability philosophy and education in recent years with majority of emphasis directed at independent rather than integrative philosophy. For example, across the globe, many universities and colleges are beginning to offer degrees in sustainability and environmentalism or other science-based aspects of sustainability studies. However, very few business schools and colleges worldwide have included sustainability as philosophy, practice, and a course in their business curriculum. This is especially the case in the United States where many bachelors and master’s programs in business, especially MBA programs, are still missing the sustainability component which is so vital to developing better managers and leaders for today organizations and their future challenges. Most of the existing programs focusing on sustainability are ecological or environmental rather than economical or business-oriented. For example, Lund University in Sweden offers an International Master’s Program in Environment and Sustainability, The New School for Public Engagement in New York offers an MS in Environmental Policy and Sustainability Management, and Long Island University also offers a Masters in Environmental Sustainability. While these programs are encouraging, the need to shift focus from characterizing and aligning sustainability as a concept and philosophy only with science education or environmentalism leaves a gap in knowledge, practice, and application, since sustainability is best defined as a holistic process.

According to Boutou (2013) sustainability in higher education remains ill-defined and this contributes to the challenge in integrating sustainability into curriculum and programs. Business schools and colleges specifically need to view sustainability in a similar light to the perspective expressed in the definition by Miller (2007), who sees sustainability as the ability of earth’s various systems, including human cultural systems and economies, to survive and adapt to changing environmental conditions indefinitely. This definition does not limit perspective simply to environment or environmentalism, but considers value-based ideas and behaviors or culture as part of sustainable principles and practices. By virtue of this, business schools and colleges have the opportunity to teach individuals how to manage and lead more effectively and efficiently in making their organizations more successful.

Integrating sustainability principles into higher education curriculum and programs is believed to be slow (Chalkley et al., 2010) because of lack of systematic approach (Lidgren et al., 2006), lack of understanding, knowledge, and planning (McFarlane and Ogazon, 2011), resistance to change and lack of motivation to engage sustainability practices and ideas (Jones et al., 2008), ineffective leadership of business schools

(Cavico et al., 2010), prevailing organizational culture and values (Jones et al., 2008). Furthermore, the failure to organize and plan for knowledge dissemination stymies the ability of business schools and colleges to effectively integrate sustainability into their programs and curriculum (McFarlane et al., 2009).

The belief that sustainability is the domain of science and science education might be a factor or barrier to integrating sustainability philosophy and practices in business curriculum and education because of the narrow view of sustainability as solely an environmental and green endeavor. This perception or perspective needs to change since sustainability involves much more than this. It is a process that organizes human activities so that society, its citizens, and the economy are able to meet their needs and express their greatest potential in the present as well as the future (West Chester University of Pennsylvania, 2011; McFarlane and Ogazon, 2011).

3.3. Organizational culture and leadership

The culture of organizations matters because culture affects the processes that unfold in social institutions. Social organization, education, and political structure are shaped by culture and are concerned with the manner in which people relate to each other, organize their activities for communication and survival, transmit behaviors and values to members, and how they lead and manage (Cateora, 1983). The leadership of an organization shapes and influences its culture. Furthermore, because of the role that culture plays in influencing behaviors including reaction to change, organizational leaders must consider the elements of the organization's culture and evaluate these elements as to how they will facilitate acceptance or resistance, and how such will affect proposed sustainability programs and initiatives. There are several things that must be recognized regarding culture as organizational leaders try to adapt their cultures to sustainability principles and perspectives: (1) culture cannot be divided into separate parts and be fully understood; (2) the facets of culture are intricately intertwined and cannot be viewed singly but must be considered for synergistic effects; and (3) the personal interests and motives of people are determined by interwoven facets of culture rather than perceived individual parts (Cateora, 1983, p. 95). This means that simply understanding organizational culture may not be enough to integrate sustainability philosophy into an organization. This is where leader power, influence, and authority become effective tools in gaining support for sustainability programs. Leaders must share their vision of sustainability in the organization and seek buy-in from employees and other stakeholders. They must also empower employees by encouraging them to embrace change and modeling the way for change. Through effective leadership business schools and colleges can successfully build a culture of sustainability.

3.4. Marketability and change

Marketing sustainability and managing change effectively can become challenges in integrating the sustainability philosophy into business curriculum. The important question for many business schools and colleges will be: "How do we effectively market sustainability as an important career endeavor given current mindset of prospects and stakeholders toward environmental-ecological, economic, and social sustainability?"

The answer to this question will depend on geography, culture, job market and prospects, and the marketing strategies and techniques used to communicate the value and worth of sustainability studies and programs to prospective students. More importantly, before the sustainability philosophy can be adopted and integrated as part of the business school culture and programs, internal customers which include faculty and staff must be onboard.

Effectively marketing sustainability to internal customers and stakeholders of business schools and colleges is one of the first important steps in testing the waters for the integration of a sustainability philosophy and implementation of sustainability programs and initiatives. Including sustainability programs and courses in business school curriculum represents change and organizational leaders and managers must effectively and efficiently accomplish this if they are to overcome internal resistance from employees and managers. Today's business world is all about planning for and managing change to maximize value for the firm. In order to fully embrace the sustainability philosophy, some organizations will simply need minor cultural, social, and structural adjustments, while others will need to make significant changes or alterations to existing functional areas and structure. In any case, this requires support from all levels of the organization. Sustainability itself represents change, and only change that is successfully marketed can create opportunities and add value for organizations and their shareholders.

3.5. Costs, accreditation, and other limitations

There are other factors that the authors view as posing challenges to integrating the sustainability philosophy into business curriculum, namely, costs constraints, accreditation and other limitations present with higher educational institutions, and more specifically, business schools and colleges. In many cases there is a heavy cost involved in designing and marketing new programs in sustainability education in business schools. The costs and time associated with such an endeavor can be prohibitive for some institutions based on their availability of resources and access to resources. Furthermore, offering sustainability courses and/or programs as a new venture in business schools and colleges will require hiring experts or new employees with degrees and qualifications to teach in the field. According to the type of business accreditation the institution possesses, this process can further add to costs or become more challenging since new programs will necessarily need approval. There are also other limitations to effectively integrating sustainability philosophy and programs into business curriculum and programs. For example, current employees including faculty and staff may lack interest and qualifications and may foster the view that sustainability is more of a science education than a business concern. Furthermore, business school deans and directors of programs must gain board approval and ensure that sustainability programs and concepts will fit into existing institutional mission and vision. Identifying the need for sustainability programs and practices by existing and prospective students might also determine the need for sustainability education or training. Finally, if leaders and manager in business schools and colleges do not understand sustainability in all its facets, it is difficult to effectively manage its integration into current curriculum and programs.

4. The broader picture of sustainability inclusion

Including sustainability in business programs and curriculum is not a difficult challenge from a technical perspective. There are many innovative ways in which this can be achieved, and two approaches are particularly simple and reflective of current and ongoing practices in education. The first approach is introducing sustainability as an “across-the-curriculum” requirement whereby teachers and faculty are expected to include sustainability or aspects of sustainability and its philosophy into their courses or lessons. The second approach is to develop sustainability courses or programs. These courses or programs can be mandatory or optional, and courses on sustainability can be stand-alone courses, electives, or core and specialized courses in degree programs. Sustainability across the curriculum will ensure that every business student is educated about sustainability to a significant degree. While this will not be enough to completely transform individuals’ mindset about the environment, conservation, energy savings, sustainable business practices, etc., it will represent a starting point for integration.

Sustainability should be considered a new opportunity for developing educational curriculum, teaching new skills sets, and training individuals to deal with change and the future in identifying and responding to the various strengths, weaknesses, opportunities, and threats (SWOTs) arising from the macroenvironment and microenvironment of organizations. More importantly, sustainability represents development of further understanding of our world as a system of interrelated processes where our behaviors and actions, and activities and decisions holding important consequences for our well-being and for posterity. We must come to see sustainability as creation of new opportunities rather than as a burden or challenge as our attitude toward sustainability matters (McFarlane and Ogazon, 2011) and can significantly influence how we view, value, and understand sustainability.

5. Implications for business schools and colleges

Students need to develop alternative values, knowledge, and skills for integrating sustainability into their daily lives (Haptipoglu et al., 2013) before they can acquire the *culture of sustainability mindset* that will create more conscientious citizens for a better future. Moreover, our daily lives need to become more attuned to practices that reflect sustainable living on several levels – in our production and consumption patterns, and most importantly, in the personal and strategic decisions we make as private individuals and as members of organizations and citizens of a changing and progressive society. We must foster a deeper learning approach (Blottnitz, 2006) in business schools and colleges that reflect broader and critical thinking skills needed by international and global business leaders and managers of the 21st century.

MBA programs are particularly lacking when it comes to the integration of sustainability philosophy, principles, and concepts. It is critical to focus at this level because MBA graduates often become critical value adders and decision makers as leaders, managers, and strategies in today’s organizations. The general MBA degree is especially in need of an upgrade across many business schools and colleges in the United States and globally, and integrating sustainability philosophy, principles, and concepts at this particular point in time might not only be timely and appropriate, but a very important in transforming how we measure and look at

value and success. Sustainability must be increasingly seen as a competitive strategy that allows firms new opportunities to add value and differentiate themselves from their rivals. Moreover, it allows business schools and colleges to explore inadequacies in current programs and curriculum and to build a stronger foundation for graduates entering a complex and highly interrelated and integrated world of business.

While most MBA programs still have not caught up with or integrated sustainability into their curriculum, there are considerable efforts evident by an increasing trend of many major business schools and colleges offering MBA programs in sustainability or other sustainability degree programs (Stubbs and Cocklin, 2008). This trend is especially notable in Asia, Europe and Australia. Several American universities and colleges have also become aware of this need, and the University of Wisconsin-Oshkosh with its Center for Sustainable Enterprise (CSE) is a leading force in this newly found innovation in MBA programs, but is best known for its Master's in Sustainability. Northeastern University also offers a Sustainability MBA, and several other American MBA programs are catching on, mainly in the Northern United States. For some reason needing examination, many of the well-known large universities and MBA in the Southern United States have not caught on. For example, the State of Florida in the South has an extensive university system with AACSB accredited MBA and business programs, but these universities have not embraced the Sustainability philosophy in their programs as can be seen in many programs across Asia, Europe, and Australia. One of the other areas seemingly complementary to embracing the sustainability mindset characterizing trends toward Sustainability MBAs is Knowledge Management, which coincidentally, is also far ahead in universities and programs in Europe, especially the UK, as well as Australia and Asia.

6. Developing sustainability culture and programs

Developing and fostering a culture of sustainability is a challenge that today's institutions must quickly embrace in order to prepare graduates for current and emerging organizational issues, especially as we experience increasing economic, financial, resources, environmental and social crises and problems that are changing the local, national, international and global playing fields for individuals, organizations, and nations. The problem of resistance of change is always a major challenge to overcome before instilling new philosophy or cultural values in organizations (Jones et al., 2008; Schermerhorn et al., 2012). Secondly, educating individuals in preparation for the change or transformation to embrace sustainability as the new approach or philosophy to creating value is paramount, and leaders and managers must devise creative and innovative strategies to accomplish this.

A sustainability program may involve a single course or several courses constituting a specialization, concentration, or seminar. In cases where business schools and colleges choose to create and offer a single mandatory course across their curriculum or programs, an appropriate course could for example, be a course titled "Sustainability Practices" which introduces students to the concept of "sustainability" and its definition, philosophy, and provide guidelines for management to develop a sustainable program or plan. Using a combination of resources such as academic journal articles, newspaper articles, news events, and case studies can reinforce and teach sustainability problems and challenges to students. Furthermore, students

can be assigned term projects or exercises in which they investigate sustainability practices in small and large organizations or in their communities.

There are currently some colleges and universities that are offering sustainability programs in business at the undergraduate and graduate levels and those that are behind in jumping on the bandwagon can use these existing programs as basis for developing their own. After all, many MBA programs are developed in the same manner. Modifying existing MBA curriculum to include a sustainability course or sustainability philosophy, principles, and practices will certainly be less costly and less time consuming than designing new programs from scratch. Business schools and colleges should begin to change their educational programs, paradigms, and practices (Sterling, 2004) and get all stakeholders involve in this change toward embracing sustainability for the future (Lozano, 2006).

7. Recommendations

Sustainability is vital to individual, institutional, community and national progress, and as such, it represents both challenge and opportunity in changing and shaping the future for better performance, growth and survival. Education represents the best starting point for instilling sustainability and its practices as important to individuals and society (Haptipoglun et al., 2013; McFarlane and Ogazon, 2011; Hodson, 2011), but must be effectively integrated and managed to achieve the goals that institutions and governments envision for progress and improved living standards. Institutional leaders and managers will need to be at the forefront of sustainability initiatives and programs and must empower followers and employees to follow suit. Business programs are required to be adaptive and flexible if they are to teach usable and current skills needed to survive in today's volatile market. Part of this flexibility requirement demands including sustainability practices that are rapidly emerging into training and education for graduates and fostering new skills set dedicated to environment, posterity, efficient resources allocation and utilization.

McFarlane and Ogazon (2011) have recommended teaching "Sustainability Practices and Principles" (SPP) with the following objectives:

- 1- Providing students with basic understanding of the concept of sustainability;
- 2- Understanding sustainability and its importance to human and environment;
- 3- Describing and explaining examples of sustainable practices in operations management across various industries, and business in general;
- 4- Citing examples of sustainability practices in personal and community settings;
- 5- Developing an appreciation of the challenges and rewards of sustainability and sustainability education; and
- 6- Understanding the history and development of sustainable practices (pp. 100-101).

Business schools and colleges must become more innovative and more effective in managing the body of knowledge they impart to create value (McFarlane et al., 2009). Part of this body of knowledge must be sustainability and sustainability practices that lead to better decisions in business concerning resource

allocation, financing, operations and production, and distribution and marketing practices. Furthermore, sustainability as a philosophy holds major implications for quality control and can be used as a quality management philosophy that builds competitive advantage through cost savings and branding. This means that organizations must view sustainability as offering solutions and value-adding possibilities for growth. It is recommended that today's business schools and colleges explore sustainability practices and use these in enriching their curriculum and program offerings, as well as in building new skills set for students and graduates.

References

- Blottnitz, H.V. (2006), "Promoting active learning in sustainable development: Experiences from a 4th year chemical engineering course", *Journal of Cleaner Production*, Vol. 14, pp. 916-23.
- Boutou, A. (2013), "Sustainability in higher education: Benefits and career prospects with an interdisciplinary higher education degree", Master Thesis Series in Environmental Studies and Sustainability Science, No. 2013:014. *LUCSUS: Lund University Centre for Sustainability Studies*, Lund University, Lund, Sweden, pp. 1-51, available at: <http://lup.lub.lu.se/luur/download?func=downloadFile&recordId=3813641&fileId=3813648> (accessed 17 September 2017).
- Calder, W., and Dautremont-Smith, J. (2009), "Higher education: More and more laboratories for inventing a sustainable future", in Dernbach, J.C. (Ed.), *Agenda for a Sustainable America*, Environmental Law Institute Washington, DC, pp. 93-107, available at: <http://www.ulsf.org/pdf/ESDHigherEdAmericaCalder2009.pdf> (accessed 7 September 2017).
- Cateora, P.R. (1983), *International Marketing, Fifth Edition*, Richard D. Irwin, Inc., Homewood, Illinois.
- Cavico, F.J., Mujtaba, B.G. and McFarlane, D.A. (2010), *The State of Business Schools: Educational and Moral Imperatives for Market Leaders*, ILEAD Academy, Davie, Florida.
- Chalkley B., Blumhof J. and Ragnarsdóttir, K.V. (2010), "Geography earth and environmental sciences: A suitable home for ESD?" in Jones, P., Selby, D. and Sterling, S. (Eds.), *Sustainability Education: Perspectives and Practice Across Higher Education*, Earthscan, London, England, pp. 93-108.
- Cloud, J.P. (2010), "Educating for a sustainable future", in Jacobs, H.H. (Ed.), *Curriculum 2: Essential Education for a Changing World*, Association for Supervision & Curriculum Development, Alexandria, VA, pp. 168-173, available at: <http://www.cloudinstitute.org/storage/downloads/Curriculum-21-Chapter-10-Excerpt.pdf> (accessed 8 October 2017).
- Haptipoglu, B., Ertuna, B. and Sasidharan, B. (2013), "A referential methodology for education on sustainable tourism development", *The 3rd World Sustainability Forum*, 1-30 November 2013, pp. 1-19, available at: <http://www.sciforum.net/conference/wsf3> (accessed 28 August 2017).
- Hodson, D. (2011), *Looking to the Future: Building a Curriculum for Social Activism*, Sense Publishers, Rotterdam, Netherlands.

- Jones, P., Trien, C. and Jonathan, R. (2008), "Embedding education for sustainable development in higher education: A case study examining common challenges and opportunities for undergraduate programmes", *International Journal of Educational Research*, Vol. 47 No. 6, pp. 341-350.
- Lidgren, A., Rodhe, H. and Huisingsh, D. (2006), "A systemic approach to incorporate sustainability into university courses and curricula", *Journal of Cleaner Production*, Vol. 14 No. 9-11, pp. 797-809.
- Lozano, R. (2006). Incorporation and institutionalization of SD into universities: breaking through barriers to change. *Journal of Cleaner Production*, 14, pp. 787-796.
- McFarlane, D.A. (2012), "Business accreditation competition: American higher education & global perspectives", *Business Leadership Review*, Vol. IX No. II, pp. 1-11.
- McFarlane, D.A., and Ogazon, A.G. (2011), "The challenges of sustainability education", *Journal of Multidisciplinary Research* (Jubilee Edition), Vol. 3 No. 3 , pp. 81-107.
- McFarlane, D.A., Mujtaba, B.G. and Cavico, F.J. (2009), "The business school in the 21st century & beyond: Integrating knowledge management philosophy", *Journal of Knowledge Management Practice*, Vol. 10 No. 4, December 2009, available at: <http://www.tlinc.com/articl207.htm> (accessed 5 September 2017).
- Schermerhorn, J., Osborn, R., Uhl-Bien, M. and Hunt, J. (2012), *Organizational Behavior* (12th Ed.), John Wiley & Sons, Hoboken, NJ.
- Sterling, S. (2004), "Higher education, sustainability, and the role of systemic learning", in Corcoran, P.B. and A.E.J. Wals (Eds.), *Higher Education and the Challenge of Sustainability: Problematics, Promise, and Practice*, Kluwer Academic Publishers, Hingham, MA, pp. 47-70.
- Stubbs, W., and Cocklin, C. (2008), "Teaching sustainability to business students: shifting mindsets", *International Journal of Sustainability in Higher Education*, Vol. 9 No. 3, pp. 206-221.
- Terhune, C. (2011), "B-school confidential: The hidden problems", *The Fiscal Times*, November 2, 2011, available at: <http://www.thefiscaltimes.com/Articles/2011/11/02/The-Problem-Some-Business-Schools-Hide-from-Students.aspx#page1> (accessed 5 October 2017).
- West Chester University of Pennsylvania. (2011), "What is sustainability?" available at: <http://www.wcupa.edu/sustainability/sustainability.asp> (accessed 2 October 2017).