Transforming Higher Education: A Practical Plan for Integrating Sustainability to Business Education

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ABSTRACT

Sustainability is a key issue for organizations in the twenty-first century as they increasingly acknowledge that their policies and practices have social and/or environmental consequences. Accordingly, many companies are implementing elements of sustainability into their business practices. There is an increasing recognition that sustainability-related subjects need to be included in the curricula. One current debate is whether sustainability should be integrated as a core course or whether it should be taught as standalone elective subjects. Teaching sustainability as standalone units may lead to the educational disconnect between the curricula and the social and environmental externalities. This paper seeks to understand the gaps that exist in the Curriculum and the sustainability perspectives and reconcile the same. In order to understand the sustainability perspectives, senior management executives and senior academicians were interviewed through a structured interview schedule. A questionnaire was designed for the students in order to understand their views on the importance of sustainability in management and management education.

Keywords: Sustainability, Management, Education, Global Economic System, Teaching.

INTRODUCTION

Sustainability is a key issue for organizations in the twenty-first century as they increasingly acknowledge that their policies and practices have social and/or environmental consequences. Accordingly, many companies are implementing elements of sustainability into their business practices. In step with this trend is the increasing recognition that sustainability-related subjects need to be included in the curricula of business courses, particularly MBA programs. Recent research into

sustainability education in the top 50 global MBA programs shows that over seventy percent of them offer one or more units on sustainability related topics (Christensen et al., 2007). One current debate is whether sustainability should be integrated into core course offerings for MBA students or whether sustainability should be taught as standalone elective subjects (Christensen et al., 2007, Tilbury et al., 2004). One potential danger of teaching standalone sustainability units is the educational disconnect that may arise between the free-market focus of MBA curricula and the social and environmental externalities associated with the operations of free-markets as they are currently constructed.

For more than a century management education has fostered the development of leaders with their immense creation of output that we now see as unsustainable. If we wish to avoid a time of tumultuous environmental crisis in global economic system, management education must move more to being a part of the solution rather than the problem. The sense of deeper purpose vibrancy and developing authentic relationships in management education for global sustainability is the need of the hour for Indian Management education.

OBJECTIVE

This paper seeks to describe and understand the gaps that exist in the MBA Curriculum and the different sustainability perspectives that the corporate world expects and reconcile the same.

METHODOLOGY

In order to understand the different sustainability perspectives a structured interview schedule was developed for the senior management executives of a leading company and leading academicians. A questionnaire was designed for the students in order to understand their views on the importance of sustainability in management and management education.

REVIEW OF LITERATURE

Increasingly, efforts world-wide in business corporations, educational systems and communities are directed at establishing baseline data, benchmarks and standards that enable sustainability to be measured and evaluated (Global

Reporting Initiative, 2007; UN Global Compact; 2001; Teachernet, 2008a; Sachs, 2005). These initiatives are serving to promote more responsible practices related to environmental preservation, to the education of upcoming generations in sustainability, and to the development of a more just and sustainable world. However, all too often these initiatives plateau, or fail to evolve to the next level (Doppelt, 2003; McDonough & Braungart, 2002). There have been numerous studies in recent years on different aspects of effective leadership in the corporate world, in education, and in community (Esty & Winston, 2006; Leithwood, Seashore Louis, Anderson, & Wahlstrom, 2004; Quinn, 2007; Seelos & Mair, 2005b; Waters, Marzano & McNulty, 2003). However, little as yet has been done to explore in greater depth the developmental experiences of leaders across these different domains to identify those that are most powerful in implementing sustainable development efforts. Doppelt (2003) states that "discussions about what to do is not to dominate the public dialogue on sustainability" (p. 16). Little emphasis, he indicates, is placed on "how organisations can change their internal thought processes, assumptions and ingrained behavior to embrace the new tools and techniques" (p. 16).

Growing concerns about the impact humans are having on our planet, and the implications of those impacts for future generations have led many to argue that higher education has a key role to play in helping us move to a future characterized by an ability to meet the needs of the present without impeding the ability of future generations to meet their own needs. Over the last twenty years, scholars, activists, and others have noted that through the research they conduct, the engagement they experience with the broader community, and the operations they oversee, colleges and universities can serve as test sites and models for sustainable practices and societies. Where colleges and universities may have the largest impact, however, is with the students they educate.

CHALLENGES

Today, more than 12 percent of the population enrol for higher education in colleges and universities in India alone, and if they graduate with the skills to help societies develop more sustainably, higher education will have indeed played a key role in leading us in a new direction. Thus, if we seek to create conditions that will

ensure a more sustainable future, higher education will have to provide college and university graduates with the skills, background, knowledge, and habits of mind that will prepare them to meet the challenges presented by climate change, loss of biodiversity, a world population of 9 billion in 2050, limited water resources, global health issues, and extreme poverty.

The scale of this challenge, of integrating sustainability into college and university curricula, is significant.

First, unlike many issues related to sustainability, curriculum change is not something that can be legislated or achieved through policy decisions. **Second,** deciding how to change the curriculum is complicated by the fact that there are multi-curricula within any institution. **Third,** sustainability is inherently interdisciplinary and the organization of our institutions around departments and disciplines does not always support the kind of curriculum innovation that is needed. Additionally, particularly at large institutions, the very scale of campuses can lead to silos that hamper efforts to build significant curriculum change across a campus.

The fundamental problem faced in meeting the goal of education for a healthy and sustainable society for all students is that the existing curriculum in higher education has not been developed to examine how we shape a sustainable world. Much of the curriculum has been developed to provide students with an increasingly narrow understanding of disciplines, profes-sions and jobs and is focused on specific knowledge and skills employed in the given area. What is needed is a curriculum that prepares learners for living sustainably, both professionally and personally, and that explicitly helps the learner deeply understand the interactions, inter-connections, and the consequences of actions and decisions. The broad challenge of education today is to align theoretical and practical education and make it relevant to a dynamic and rapidly changing environment. Industry and organisations have made it clear to educators that they are no longer satisfied with hiring graduates who have only technical skills relevant to their profession and a general and theoretical understanding of business dynamics.

The literature review suggests that in today's globalised economy securing and maintaining competitive advantage requires more than an understanding of industry conditions and organisational positioning.

RESULTS AND FINDINGS

Although the participants' personal journeys to sustainability were dissimilar, occurring at different stages of their lives and for different reasons, their leadership mindsets at the time of the interviews demonstrated strong similarities. Among the findings that emerged across the three domains of business, community and education, the most significant were:

A) Business:

- To understand sustainability it is necessary to understand unsustainability.
- To understand the impact of IT process on planet, build a power plant next to IT plants.
- There are three sustainable development practices that the businesses can practice-people, planet and profit.

TABLE I SUSTAINABLE MANAGEMENT PRACTICES AND BENEFITS

Sustainable Management	People	Planet	Profit
Employee	Team Work	Growth	Ability to Work
← Work Life Balance→			
Company	Productivity	Recycle products and carbon reduction	Growth
\leftarrow Profits \rightarrow			
Manager	Loyalty	Growth with change	Success
← Performance→			

Source: Primary Data

The sustainable management practices include employee, company and manager and the impact of their business practices on people, planet and profits. As seen in Table I above, the sustainable management by employees helps build team work. This team work in turn helps for the growth of human understanding. Sustainable management by a company leads to productivity as the company rinses its products by recycling every product. This also helps the company to secure sustainable growth in profits. Sustainable management by a manager increases his popularity among his subordinates and enhances loyalty. Under these circumstances, the company and he achieve success through training and performance.

- ► There is a need for companies to improve and change process to be better and grow sustainably.
- ► Trigger activities like innovation workshop on sustainability and unsustainability for students and educators alike.
- ► Encourage students to undertake project based subjects such as process, product, employee, company, management, as means to these to work towards sustainability.
- Sustainability as an obsolete construct. Several of the participants considered this term as inadequate to describe the full scope of the work they do. Their sustainability efforts have gone far beyond environmental actions such as reducing, reusing, recycling, or corporate philanthropy and equal opportunities in personnel recruitment and retention. Their personal and professional work has evolved towards a more integral response to environmental, social, and economic issues, which a number of them referred to as regenerative practice.
- Sustainability leadership as the result of "inner work." One of the most important findings pertaining to successful sustainability efforts lay in the deliberate focus on increasing personal awareness through what one of the participants called "inner work," the willingness "to surface and change one's mental models," particularly "the ones that lead to unsustainable structures and behaviours." Other participants alluded in their own words to the importance of this awakening for a sustainability mindset to be attained.
- Sustainability leaders possess an integral and systemic perspective of reality. The ability to develop a sustainable mindset, to "learn to tread lightly" on the planet, has involved what they reported as a highly personal process of going beyond personal comfort zones and areas of expertise to venture into unknown territory to explore new solutions with others. This related to going beyond the limited possibilities of applying a positivist epistemology of practice or "technical-rationality" to solve current problems.
- Sustainability leadership as regenerative. This process, however, is not viewed
 as an end in itself but as a purposeful means to an end, since it leads to the
 development of pertinent frameworks for sustainability. In Barnum's words,
 "the quest is how to get, using a very systems-oriented approach, a level of
 frameworks that actually creates well-being for all; well-being for the earth."

- Sustainability leadership as process. The participants noted that by working on the interaction between the subjective and objective fields of attention, they were able to develop increasing sophistication of knowledge, understanding and skill in working with issues of sustainability. The contention here was that personal behaviors could only be as sustainable as the consciousness from which they originated. Sustainability leadership as non-charismatic and purpose driven. From their different perspectives, participants spoke of the importance of checking "egos and logos at the door," of recognizing that leadership in the context of sustainability was most effective when it demonstrated the ability to listen actively, to engage in collaborative and generative conversations, and to empower others by considering all participants' contribution as central to effective sustainability.
- Sustainability leadership in the organization as shared and heterarchical. If connecting to a personal purpose through inner work was essential to becoming effectively engaged in sustainability, this same emphasis needs to be integrated within the culture of an organization, and across related organizations.
- Multiple stakeholder engagement as key to sustainability. The participants strongly asserted the critical importance of involving all stakeholders in the decision making process at the outset of any sustainability initiative in order to ensure the most effective result. Leadership in this context was envisioned as emphasizing the creation of 'safely dangerous' working environments where generative conversations could take place.
- Generative conversations as a core operating principle for teams seeking to create
 desirable futures. The participants showed clear understanding that current
 problems cannot be resolved by applying past thought patterns and strategies.
 Problems and new opportunities require a distinctly new and creative approach.
 Liberating people's creative energy requires the establishment of environments
 where people are empowered and encouraged to suspend their judgment and bring
 new thinking to the table.
- Intra and inter-generational equity. For sustainability to be attainable, the participants showed strong agreement that poverty eradication and embracing a long-term perspective were central principles of sustainability. This involved developing an equity mindset that considered the needs of both present and future generations. This equated to considering them as very real stakeholders in the decision making processes. This raised an important consideration regarding how to design organizational strategies that addressed uncertain and even unknown futures, and how to develop the ability to predict the most desirable outcomes of decisions taken before new challenges and opportunities had begun to take shape.

• Envisioning and materializing desirable futures. This places enormous demands on the individual and collective capacity to create and innovate. Avoiding unanticipated consequences of a potentially exponential nature calls for a radical break from traditional approaches to strategic planning.

Though all participants reported significant gains in the establishment of better practices regarding environmental and social issues and, in the case of business corporations how they had sustained a viable bottom line in the process, none of the respondents was able to offer examples of a deeper and sustained level of consciousness, which Scharmer et al. (2002) called the "mode of deep flow, presence, and collective co-generation."

Given that the purpose of this study was to develop a substantive theory and testable hypotheses on sustainability leadership, the section on implications for practice and further research from leaders in academics and students pursuing management education, addresses these findings in greater depth.

B) Education:

- Most of the organisations have neglected the component of sustainability and the component has risen without sustainability is capitalism - that is remain different, to remain in the market.
- Strategies that the educational institutions can adopt are:
 - ▶ Decent teaching-learning process towards the coverage of academic syllabus.
 - Organisation discipline among all to carry a set of socially responsible activities.
 - ▶ Innovation and research and development culture among the students towards sustainability processes and practices.
- Some of the policy Strategies involved in is to describe the strategies that have been most effective in moving the organization to greater degrees of sustainability, and how these strategies have been translated into Policies, Procedures and Processes for sustainability are:
 - ▶ Policies: attracting qualified and committed faculty, educating the student community about the requirements in the corporate market.
 - ▶ Procedures: Continuous monitoring, motivating faculty to keep pace with the changing requirements of the industry. Inculcating leadership among students.
 - ▶ Process: Training for the faculty and students and continuous exposure to centres of excellence.
- No problem is foreseen of capitalism as long as sustainability is given its due share. Also for educational institution, as long as its financial condition is good, it is directly related to its sustainability.

- The major challenges of business education can be described in three folds:
 - ► Finding the qualified educators who continuously keep pace with business requirements of the industry.
 - ▶ Preparing the students to meet the challenges considering the different areas of study.
 - ▶ Declining values in the society.
- Leader development processes and actions differ across business, education and community. There should be a mechanism to coordinate the requirements of the business or community needs, so that education can be strengthened or designed to meet these requirements.
- Sustainability is inherently inter-disciplinary and that innovation at all levels is essential. Unless, there is a deviation from the conventional education system and give little opportunity for innovation, the problem will remain as it is today.
- A strong interaction between academicians, research and development institutes, business leaders and community takers, keeping the global market in mind only will give lasting solution towards sustainability.
- In the present education system, it may be a little difficult to align the sustainable education with the other educational commitments. The possible solution is that after completion of the basic education, a student should earn his experience from industry and should undertake a few courses related to sustainability.
- Institutes like IIMs and Technology teacher training Institutes should take lead in designing a 6 month to 1 year diploma programme exclusively for educators to create and implement sustainability in regular curriculum. If this is done, the above discussed alignment will yield tangible results.
- In the accreditation process, a defined weight age should be given to the institution which is focussed on sustainable process, curriculum or procedure.
- Sustainability, as a National lifelong strategy will definitely play an important role and it will be a powerful tool to enhance the quality of education and Nation's growth. A well defined procedure to maintain sustainability at all levels of education and training is required.
- It is necessary to educate the management of educational institutions about the importance of sustainability and its implementation.
- It is also essential to prepare students and educate them about the importance of sustainability, business ethics and harmony.

C) Students:

A sample survey of 40 students undergoing the MBA course from different colleges of Bangalore was undertaken to understand their attitude, aspirations and understanding of the need for the study of sustainability. The results found there from are discussed below.

Q.1: Thinking of your time at the last place you studied before attending your current university/college, for each of the following descriptions, please tell us to what extent, if at all, you believe these skills below were covered in your curriculum.

In order to understand where sustainability is being taught in further education, the core skills evidenced from the desk research were broken down and retrospective recall of coverage of these skills was posed. There is clear opportunity for the coverage of core competencies to be formalised and deepened; however, the majority of all students believe that all skills were at least partially covered during their time in further education.

Q.2: Which of these statements would you say best describes your current lifestyle?

Respondents believe themselves to be generally positive in terms of demonstrating environmentally friendly behaviours, with little differentiation in environmental attitudes by the respondents. Notably, 34 percent of respondents believe that they are environmentally friendly in everything or most things that they do, indicative of opportunities to facilitate environmentally friendly behaviours.

Q.3: Whether your college and faculty members practice and promote good social and environmental skills?

More than 64 percent of the respondents agreed that their college and faculty members practice and promote good social and environmental skills.

Q.4: How likely, if at all, are you to take part in the following actions during your time in university?

Additionally, the intention to conduct behaviours is strong where the behaviour is considered normative and can be conducted individually, Collectivism is often a barrier to uptake of pro-environmental behaviours, and fewer respondents anticipate participating in recycling. Reducing flying is also considered less likely than other core pro-environmental behaviours.

A small number of future-facing questions were asked, forcing a discrete choice. These questions were not necessarily entirely mutually exclusive, but designed to gain an insight into preference of two likely scenarios based on findings from the literature search.

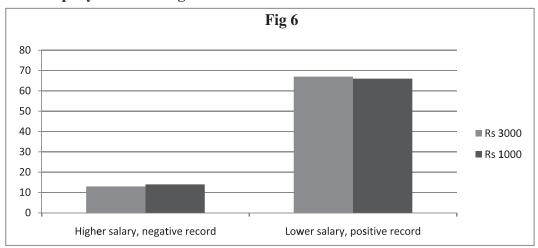
Encouraging attitudes towards skills for employability were seen, with almost half of respondents stating that they felt they would choose a module that expressly developed skills for employability rather than furthering the knowledge of their chosen subject. If policy-makers choose to retain the 'added content' thinking in relation to skills for sustainable development, respondents indicate that demand for a tailored approach to these softer skills exists.

Q.5: Please select which option you think that you would choose.

A role for communication of company ethics exists throughout the student journey: the majority of respondents would sacrifice Rs.1,000 from salary to work in a responsible company; this trend is not reversed when the sacrifice is increased to Rs.3,000. Altruistically, 80 percent of respondents report that they would still sacrifice Rs.3,000 of salary to work in an environmentally and socially responsible company (see Figure 6 below).

Q.6: Please select which option you think that you would choose:

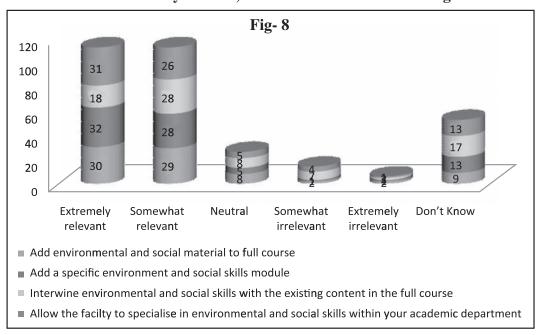
- a) Assuming all other factors are equal, would you choose a graduate position with a starting salary of Rs.1000/Rs.3000 higher than average (Rs20,000) in a company with a poor environmental and social record?
- b) Assuming all other factors are equal, would you choose a graduate position with a starting salary of Rs.1000/Rs.3000 lower than average (Rs.20,000) in a company with a strong environmental and social record?



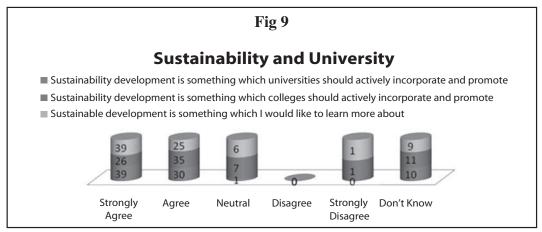
Q.7: To what extent do you agree that universities should be obliged to develop social and environmental skills as a part of their course?

About 80 percent of the respondents agreed that universities should oblige to develop social and environmental skills as a part of their course.

Q.8: Thinking that if a policy were passed to include social and environmental skills within all university courses, how relevant are the following methods?



Q.9: "Sustainability development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs". To what extent do you agree with the following?



CONCLUSION:

Relevance of Skills sustainability Literacy

First-year students, on the whole, overwhelmingly believe that these skills are important to graduates in their field, with little differentiation between course types, although environmental scientists, as hypothesised, are more likely to rank these skills as 'important' or 'very important' than their counterparts studying other subjects.

However, in general, the relevance of these skills falls slightly behind importance across all subject types excluding environmental sciences. This is strongly resonant of the findings of the desk research, indicating that educators are not yet comfortable in including sustainable development within their curricula.

These skills are felt to be valuable to study in higher education; however, skills regarding nature and ethics are less important to respondents than softer skills that can be directly applied to all courses. There is an overwhelming expectation for universities to provide skills for employability and a wider argument for business to take a more active role in supporting the development of such skills in universities and also professional bodies, such that the skills encompassed within sustainable development are transferrable, relevant and essential for the future marketplace.

Attitudes to sustainable development and social issues are broadly similar irrespective of previous place of study or course, although are slightly affected by historic exposure to sustainable development initiatives. The skill set incorporated within sustainable development is seen as of high importance and relevance, and it is considered the role of Higher Educational Institutions to deliver these skills. However, the sales power of broadening these skills for employability alone is not enough to attract students away from their preferred institutions.

The desk research reveals that if many vice-chancellors of universities sign a statement of intent to incorporate sustainable development into the curriculum; this the work reinforces the existing intentions within universities and could have an impact on the process of embedding and extending sustainability literacy within existing teaching and learning programmes.

Demand for Policy

Encouragingly and possibly a result of the previous policy setting, a cultural shift is in evidence with the majority of respondents choosing to identify a job with a Rs.1,000 decrease in salary in a company with strong ethics as more attractive

than an increase of Rs.1,000 on average in an unethical company. This trend is, however, reversed at the higher price point of Rs.3,000.

The desk research triangulates student demand for skills in sustainable development by highlighting a demand for sustainably literate graduates among employers (although a need exists to understand better how employers define these graduates). Additionally, the research indicates anticipation by employers of a need to employ staff with skills for sustainability literacy in a future workplace. It is also essential that future work with employers includes a definition of employability that resonates with students and employers alike.

In the context of high youth unemployment, informal qualitative research (unpublished) for Sustainability indicates a real need for business and universities to collaborate in order to equip graduates for the workplace. This is of particular relevance in the case of many graduates who are forced to take unpaid or low-paid internships in order to develop the skills required for a workplace.

RECOMMENDED OUTPUTS

The contribution of sixth form teaching is apparent in the existing skills and knowledge of first- year students in higher education. However, those responsible for teaching subject disciplines that are distant from the more obvious Sustainable Development content (e.g. Mathematics, English, arts and languages) can fail to see how Sustainable Development can be included in their teaching.

- ▶ An online resource, made available to these individuals will serve to improve the baseline skills and knowledge of students in higher education. There exist international examples from which the work of constructing such a resource might begin.
- ▶ A need exists to work on student demand: for Sustainable Development to gain further foothold within the curriculum, students need to be aware of the employability significance of skills in sustainable development, requiring development of partnerships with business.
- ▶ A diversion of funds into creating this demand through communication of the employability value is likely to result in an increase in support from students, higher education institutions and employers. Professional organisations may have an important role in this process.
- ▶ In order to further support those delivering these skills, a resource, utilising case studies, to demystify the contextual reframe of existing content is likely to be well received among those responsible for curricula and delivery.

- ▶ This research additionally indicates that it is essential that future policy focuses on the need for full incorporation of sustainable development principles, rather than additional modules that are used to promote skills but undertaken by a minority and are not demanded by students, nor preferred over courses that extend knowledge of their chosen subjects.
- ▶ To make this point absolutely explicit: it is not that it would be good if engineers, architects, economists, town planners, managers and others were taught some more about Sustainable Development, it is, rather, that Sustainable Development is something that any good engineer, architect, economist, town planner (and so on) should be expected to know about.
- ▶ There are already professional bodies that recognise this. Further to this, it is essential that when guiding the incorporation of Sustainable Development principles into the curriculum, an interdisciplinary approach is recommended.

Support for Outputs

In order to achieve the above suggestions, senior management support within universities is essential. A mandate for sustainability champions from senior management groups at each university and a national forum to discuss and support the work of these champions is the key to progressing holistic thinking and delivery of the Sustainable Development agenda.

Supporting Sustainable Development, Operational and Strategically

In order for progress to be made, acceptance of an interim working definition of Sustainable Development is essential. There also exists a need for increased media and sector support of groundbreaking initiatives within the Sustainable Development arena. Case studies demonstrate that the launches of national initiatives in the Sustainable Development agenda need to be marked with a well disseminated conference to support national uptake and impact.

Future Research

This research represents groundbreaking findings on academic and company perspective, together with student attitudes towards, skills in and aspirations for sustainable development, and sheds light on a policy/values gap, and student demand and expectation for 'softer' skills for employability. However, the historically sparse information on student attitudes to, skills in and aspirations for sustainable development and the shifting student universe in light of the increased tuition fees highlight a need for future research.

There is considerable demand from students in order that they are equipped with the skills for sustainable development defined within this research. However, an important need exists to understand the impact of tuition fees on student aspirations and expectations of the role of higher education. Further research at the commencement of the forthcoming two academic years, monitoring student attitudes to, skills in and aspirations towards sustainable development will allow for monitoring of shifting sands within the student demographic, to inform a dynamic, reactive and future-facing Sustainable Development agenda.

This study provided a better understanding of how sustainability leaders have become engaged in their efforts in addition to how they work most effectively across domains to share best practices and make the most efficient use of resources to drive sustainable development which would be a valuable contribution to this field of research.

In the midst of such global and domestic policy developments, opportunities are emerging and demand for new skills and ways of thinking is omnipresent. Business schools play a key role in educating tomorrow's managers and C-level executives. We need graduates with a solid understanding of the drivers and characteristics of a sustainable, low carbon economy, who are also equipped with the ability to problem, solve and think outside the box. Graduates should understand how new policies and market demands present business opportunities – across all sectors, including finance, IT, agri-food, and energy. Understanding the basic principles of sustainability on a practical level from the perspectives of product design, manufacturing, marketing, accounting, and sales will be the key to implementing new practices.

Today's business models and ideologies, collaborative networks, and product offerings will need to reflect the realities of a changing future. We need change agents who are equipped with information to challenge the status quo and explore new ways of doing more with less. Promoting innovation in product development and business models will help us compete and ensure a high quality of life in a low carbon future.

REFERENCES

- Amit, R. & Zott, C. (2008). The fit between product market strategy and business model: implications for firm performance. *Strategic Management Journal*, 29(1), 1-26.
- 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 Global Business Schools: baseline data and future research directions. *Journal of Business Ethics*, 73(4), 347-68.

- Doppelt, B. (2003). Leading change toward sustainability: A change-management guide for business, government, and civil society. Sheffield, UK: Greenleaf Publishing.
- Esty, D. C., & Winston, A. S. (2006). From green to gold: How smart companies use environmental strategy to innovate, create value, and build competitive advantage. New Haven: Yale University Press.
- Global Reporting Initiative (2007). *Reporting framework*. Retrieved February 15, 2009, from http://www.globalreporting.org/ReportingFramework/ReportingFramework Downloads/#1
- http://aom.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue ,11,17;journal,2,4;linkingpublicationresults,1:109449,1
- Leithwood, K., Seashore L. K., Anderson, S. & Wahlstrom, K. (2004). Review of research: How leadership influences student learning. Learning from Leadership Project, Ontario Institute for Studies in Education at the University of Toronto: The Wallace Foundation.
- Marzano, R. J., Waters, T., McNulty, B. A. (2005). *School leadership that works:* From research to results. Association for Supervision and Curriculum Development (ASCD).
- McDonough W. & Braungart, M. (2002). Design for the Triple Top Line New tools for sustainable Commerce. *Corporate Environmental Strategy*, *9*(3), 98.
- Quinn Laura Leadership and the Triple Bottom Line (2007). Bringing Sustainability and Corporate Social Responsibility to Life, 6-8. *CCL Research White Paper*.
- Sachs, J. (2005). *The end of poverty: Economic possibilities for our time*. New York: Penguin Books.
- Scharmer, C. O., Arthur, W. B., Jonathan D., Joseph J., Michael J., Ikujiro N., Peter M. S. (2002). Leadership in the Context of Emerging Worlds, Leader to Leader. 11-14.
- Seelos, C. & Mair, J. (2005). Sustainable Development: How social entrepreneurs make it happen. *Working Paper. IESE Business School*, University of Navarra.
- Teachernet, W., & Jesse, L. M,(2008) The relationship among elementary teachers' content knowledge, attitudes, beliefs, and practices. *Journal of Mathematics Teacher Education*, 11(2).
- 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 Department of the Environment and Heritage, Canberra. www.unglobalcompact.org