
The need for new paradigm of sustainability reporting in higher education

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Abstract: The issue of sustainable development in education have been developed since the agenda of the World Summit on Sustainable Development (WSSD) in Johannesburg 2002th have a great impact on educational system around the world. Higher education (HE) can be involved in sustainable development in many ways towards sustainable university (SU). Sustainability should not be a concept about economic, environment and social aspects only. But it needed to change our paradigm by including spirituality values in concept of sustainability. Process towards SU will be done in model spiral of Deming with continuous improvement. This paper also review practice of sustainability reporting for HE in Australia, USA, Europe and Asia. This paper offer the new form to report sustainability activities using spiritual dimension as umbrella for the other dimension (eco-spiritual, socio-spiritual and environmental spiritual).

Keywords: sustainable development; higher education; spirituality; emerging economies; sustainable university; sustainability report.

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1 Introduction

Concept of sustainability has suffered from a proliferation of definitions. Many people could give different mean of the concept. In the beginning, the term is introduced in Brundtland Report on sustainable development context which defined as: “*development that meets the needs of the present without compromising the ability of future generations to meet their own needs*” (World Commission on Environment and Development, 1987).

The rise of sustainable development is a concern to planet/earth that suffer from damage which is caused by exploitation to meet the human need economically. We have been facing the environmental issues like global warming, depletion of ozone layer, inefficient land, and environmental damage which they could not separated from activity and effort of human being to meet their need. We cannot escape from the reality, otherwise it will be our duty to manage the environmental.

The various portraits of life have attract attention of United Nations (UN) to establish a commission in 1983 which is known WCED (World Commission on Environment and Development) and led by Ms. Gro Harlem Brundtland. One of the main task of commission was arrange long term strategy in environmental field towards sustainable development start and after 2000. One of the main task of commission was arrange long term strategy in environmental field towards sustainable development start and after 2000. The next four years at the UN General Assembly in 1987, the commission report their performance entitled ‘our common future’ and introduced the term of *sustainable development*. After two years the definition was published there are at least 140 different definitions and modification been adopted. There are 300 definition have been used up to now (Johnston et al., 2007).

In business practice, Elkington define term of sustainability as: “Sustainability is the principle of ensuring that our actions today do not limit the range of economic, social, and environmental options open to future generations.” (Elkington, 1997). They have consequences that business activities not solely orientated to profit, but also care to environment and social. Musyarofah (2012) finds that corporations which disclose sustainability in their annual report will influence to market value. Although sustainability disclosure did not mediate to the relationship between governance and performance. The study is conducted in emerging economies, in this case, Indonesia. Sustainability reporting in previous study only constructed by environmental aspect and ignore the other aspects (economy and social). This paper is expanded from Musyarofah (2012) and offer new conceptual framework for sustainability reporting with including spiritual aspect.

2 The role of higher education

The issue of sustainable development in education have been developed since agenda of the World Summit on Sustainable Development (WSSD) in Johanesburg 2002th which have a great impact on education system around the world. Higher education can be involved in sustainable development in many ways. United Nations for general affairs have declare the Decade of Education for Sustainable Development (UNDESD) for period 2005–2014 and assign UNESCO to:

- 1 develop implementation draft of education process that already exist, including 'education for all'
- 2 develop consultation schemes with UN, international organisations, governmental, NGO and other stakeholders
- 3 prepare guidance for governmental to arrange ESD measurement in their national education plan.

Thus, it will demand role of education in developing sustainability.

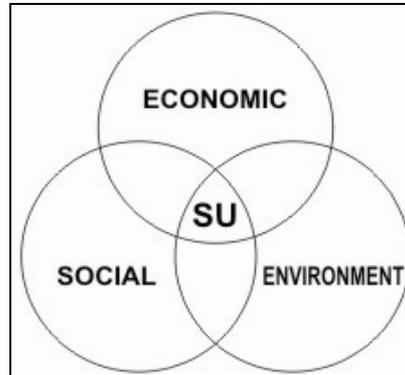
Academic community should be agent of change to capture social realities including environmental, race, religion and cultural. Thus, the development of education field is more focused on the organic intellectual rather than traditional intellectual which merely reactive (Gordon, 2002). Higher education have moral responsibility to increasing concern, knowledge, and value needed in sustainable future through education, research and service (Fien, 2002; Fadeeva and Mochizuki, 2010; Jain and Pant, 2010). As a recent publication of the Association of University Leaders for a Sustainable Future clearly indicates that a comprehensive approach to education for sustainable development is needed, and the decade can, if supported, serve as a catalyst for action at many levels and across diverse sectors of society (ULSF, 2005).

3 The new paradigm towards sustainable university

The concept of sustainable development is widely accepted, unfortunately the implementation generally judged to be successful. This is due to more focus on environmental aspects which are not able to integrate the economic and social aspects (Drexhage and Deborah, 2010; Lozano, 2011). Herremans and Reid (2002) explain that *human communities* constructed in three main systems consist of economic, social and environmental systems. However public welfare only measured by a separate measurement of the three system. While the trend unsustainable practice is continued so that the situation demanding role of higher education in changing the paradigm of sustainability.

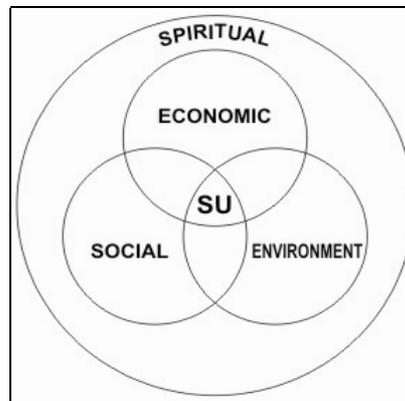
The paradigm of sustainability requires a different perspective of diverse cultures and civilisation. This view recognises that the value of sustainability fill in all cultures including religion (Qablan, 2005). Islamic Syaria regulate aspect of human life which contain issues related to protection of natural environment. Mankind as *khalifah* (leader) trusted by God to sustain the earth not vice versa creating damage. Sustainability concept is a new form of belief, not only changing of values in communities (Elkington, 1997). Wals and Jickling (2002) state that *sustainability* is a concept that not only discuss the issue of economic, environmental and social, but more broadly the domain associated with the cultural and spiritual.

Figure 1 The traditional paradigm of SU



Clugston and Calder (1999) state that “significant effort have been done to make clearly definition of sustainable university (SU) in Tailore Declaration”. The concept also popularised on 2005 in the UNDES D which introduce new opportunity in education and research as sustainability approach. However, the change of sustainability paradigm which is not only limited to economic, environmental and socio cultural, but also in spiritual dimension encourage that implementation in education field was done holistically.

Figure 2 The new paradigm of SU



The new paradigm toward SU have to develop four dimensions: economic, environment, social and spiritual which spiritual values would be umbrella and infiltrate the other dimensions.

Based on the new paradigm, implementation of SU through Deming’s spiral process with the four main aspects: policy, operation, evaluation, and optimisation.

Figure 3 Process and elements of SU

Source: Adopted from Lukman and Glavic (2007)

The process show that continuous improvement using P-D-C-A (plan, do, check and action) concept. *Policy*, are set of ideas about what should we do towards sustainable development through education. Policy contain fundamental elements as mission, vision, objectives, structure and strategies. *Operation* covering university activities daily in education, research and other practices. Sustainability values could be included in curriculum and learning method. All of the activities were documented and resulted performance report. *Evaluation*, is comprehensive step to ensure that performance accordance with expected standard so it needed performance indicator which accommodate all dimension, economic, social, environment and spiritual. *Optimisation*, is an effort to solve the problems were identified and find new idea to continuous improvement process so that SU can be realised.

4 Overview of sustainability reporting practices

Sustainability reporting is an effort of organisation to produce and publish sustainability report (SR). Business Council for Sustainable Development (WBCSSD) define “sustainable development reports as public reports by companies to provide internal and external stakeholders with a picture of corporate position and activities on economic, environmental and social dimensions” [WBCSD, (2002), p.7]

Practices of sustainability reporting adopt to global reporting initiatives (GRI) widely which cover three aspects: economic, social and environmental. GRI considered to provide best practice of sustainability reporting (Hussey et al., 2001; Morhardt et al., 2002). However, GRI guidelines were not specifically developed for higher education. So the implementation in higher education were needed modification to cover education

field. This paper review practice of sustainability report (SR) of universities in four continents (Australia, USA, Europe, and Asia):

4.1 Macquarie University (Australia)

Macquarie University (MU) have published *Annual Sustainability Report 2008th* which consist of 32 pages and including three main dimension were called *people, planet and participation* which adopted from GRI's G3. This report prepares commitment of university to sustainability in vision, mission statement, and organisational structure clearly. The table of indicator show the current achievement and the next target in 2014.

- 1 *People dimension* including *economics* (12 indicators), *fair trade* (four indicators), and *human resources* (20 indicators).
- 2 *Planet dimension* including *water use* (seven indicators), *energy and emission* (11 indicators), *waste* (11 indicators), *planning and development* (three indicators), *transportation* (seven indicator), *biodiversity* (12 indicators), and *procurement* (five indicators).
- 3 *Participation dimension* including *knowledge* (nine indicators), *internal community* (11 indicators), *external community* (nine indicators), and *events* (two indicators).

At the final section also explain about threats and opportunities faced by university to running their programs. The report have more quantitative than qualitative measure.

4.2 University of Michigan (USA)

University of Michigan (UM) has launched sustainability report as *Annual Environmental Report 2008th*, which consist of 48 pages. The commitment to publish SR have been already exist since 2002. The publication include information about *energy use*), *air emission*, *water use*, *land use*, *material use and solid waste*, and *cross cutting and emerging issues*.

Emerging issues in this case are measure of performance which more qualitative that cover information about activities to maintain the sustainability. There are six points of *initiative* have resulted in 2009 they are: *environmental reporting*, *renewable energy*, *alternative transportation*, *green purchasing*, *new construction/renovation project*, and *planet blue*. The objective of sustainability programme is to educate society about the impact of higher education to environment and how to manage it properly.

This publication discuss sustainability performance of environmental aspect because prepared sustainability report separately.

4.3 University of Birmingham (Europe)

University of Birmingham prepares sustainability report via online in 2009th known as *Sustainability Report*. This publication based on GRI guidelines and detail of information could be downloaded.

The report begin key achievements along 2006–2008, and state mission and profile of university. Activities of education and research were directed to improve sustainable development. They also establish which doing strategies related to campus sustainability.

There were three field of sustainability discussed as follow:

- 1 Campus including: environmental policies and management, developing estate, managing estate and resources, strategy in transportation and financial.
- 2 Academic and curriculum including research, education and transfer of knowledge.
- 3 Community including: *student experience*, *human resources* and *wellbeing*, built a network of alumni, *community engagement*, the relationship between cities and region and the role as international university.

Summary session explain about the impact of economic, environmental management, health and safety, *human resources and wellbeing*. This report is more qualitative and there were some supporting documents not exist.

4.4 PPM manajemen – Indonesia (Asia)

PPM Manajemen is the only universities in Indonesia that prepare sustainability report. PPM Manajemen prepare sustainability report at the first in 2010th known as *sustainability report*. The publication consist of 74 pages which refer to GRI version 3.0.

Economic aspect shown in financial statement. They also explain about governance and stakeholder involvement. Social aspect shown in profile of human resources, career development, remuneration, and development programme of sustainable resources. Social awareness done with *community development* and *community awareness*, and scholarship. Environmental aspect shown in participating to save the earth and using unrenewable resources efficiently. The institution also integrate environmental issues in the certain curriculum. Indonesia is one of the emerging economies which try to develop campus-based sustainability and having multicultural and religion. Thus, to maintain a model of sustainability reporting for HE, it is needed to care about the issues.

The practices of sustainability reporting claims to show overall picture of their sustainable universities activities and to inform stakeholders to what extent they contribute to sustainable development. The universities are currently attempting to integrate environmental, social and financial information in very different ways to extend existing reports. Herzig and Schaltegger (2006) summarise practice sustainability reporting:

- 1 *Specific sustainability report in addition to the financial report*: these reports constitute a single publication which simultaneously provides information about the organisation's ecological, social and economic sustainability activities and performance, often following the format of an earlier environmental report. A well-known example is the so-called 'Triple P-Report' (people, planet and profits).
- 2 *Extended business and financial reports*: some organisations have decided to go a step further and integrate their whole environmental and social reporting into their business reports.
- 3 *Several different specific reports*: instead of producing a separate sustainability report or integrating non-financial issues into an extended business report, other organisation have decided to publish a series of several different reports (e.g., environmental report, social report, corporate responsibility report, corporate citizenship report, etc.).

Review of sustainability reporting practices around four continental, refer to point 1 and 3, though the third choices more emphasis on environmental dimension. Format of report could be change every time depending on the communication process with stakeholders.

5 Spirituality values as umbrella to design sustainability report

GRI record an achievement in implementation *sustainability reporting*. The document give guidelines to measure performance of sustainability. Although, there are some weakness identified Odd (2003):

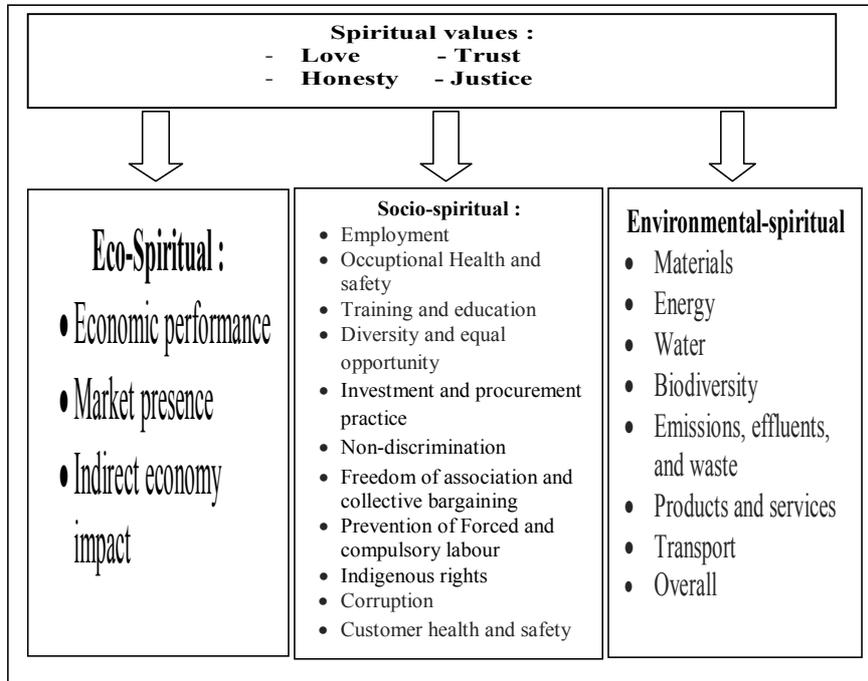
- 1 provide insufficient definitions and metrics
- 2 lack clarity
- 3 lack working examples
- 4 lack comparability with industries
- 5 the overwhelming number of indicators
- 6 the one for all approach does not accomodate the needs of different sector, size and complexity
- 7 social and economic indicator are not as developed as environmental indicator.

The weakness of GRI model have been criticised by researchers and inspiring to develop dimensions already exist 'the triple bottom line' (economic, social and environmental). Hui (2008) including spiritual value in Christian like *honouring God, honouring neighbours, honouring creation, honouring commission and everlasting principles*.

The spiritual values intend to assert that God as creator of universe, if we are as khalifah want to obey God also love in his creation including human and natural. Sustainable development as a service or vertical accountability to God and horizontal accountability (human and environment). Actual offer are not to allow the destruction of nature and the omission of poverty.

Sukoharsono (2010) offer dimension of spirituality to complete sustainability accounting concept. The benefit of spiritual value cannot be perceived directly but they have to be translated in measurement. The mean of symbols are metaphor in: sincerely love, transcendent consciousness, self contemplation and honesty. The four indicator will be measured in qualitatively.

Lozano and Ribera (2004) state that spirituality was recognised as a source of quality for individual and his society so that for developing spirituality means that increasing our sensibility and open deepest aspects of reality. This study offer that spiritual concept should be an umbrella to infiltrate other dimensions (economic, social, and environmental) so that all of dimension containing spirituality values. The spiritual values in this case are including love, honesty, trust and justice.

Figure 4 Performance indicator for sustainability report

The most of performance indicators above were derived from GRI and added with spiritual values which as umbrella for economic spiritual, socio spiritual and environmental spiritual aspects. Eco-spiritual consist of economic performance, market presence, and indirect economic impact which if organisation want to measure their performance then it must be ensured that spiritual value have been included it. Socio-spiritual dimension consist of labour practice, human right, society and product responsibilities would be elaborated in 11 indicators. Environmental-spiritual consist of material, energy, water, biodiversity, emission, product and service, transportation and overall. Implementation in practice for higher education could be various depend on characteristic and local value which is developed in every institution.

6 Conclusions

Sustainable development is the biggest challenge to universities in the 21st century. There are many different definitions and interpretations of the sustainability concept. Higher education can take a role as agent of change in creating sustainable development towards SU. Traditional paradigm shape sustainability in to three dimension, economic, social, and environment. Practically, sustainable development were measured separately in the three dimensions. Thus it needed a new paradigm to translate sustainability concept with include spirituality values consist of love, trust, honesty and justice. The values will be umbrella to design sustainability report. The design of reporting refer to GRI which widely adopted in various organisation. But implementation in practice depend on characteristic and local wisdom for every universities.

References

- Clugston, R.M. and Calder, W. (1999) 'Critical dimension of sustainability in higher education', Walter Leal Filho (Ed.): *Sustainability and University Life*, published by Peter Lang.
- Drexhage, J. and Deborah, M. (2010) 'Sustainable development: from Brundtland to Rio 2012', Paper prepared for consideration by the *High Level Panel on Global Sustainability at Its First Meeting*, 19 September.
- Elkington, J. (1997) *Cannibal with Forks: The Triple Bottom Line of 21st Century Business*, Capstone Publishing, Oxford.
- Fadeeva, Z. and Mochizuki, Y. (2010) *Higher Education for Today and Tomorrow: University Appraisal for Diversity, Innovation and Change Towards Sustainable Development*, Integrated Research System for Sustainability Science, United Nations University and Springer.
- Fien, J. (2002) 'Advancing sustainability in higher education: issues and opportunities for research', *International Journal of Sustainability in Higher Education*, Vol. 3, No. 3, pp.243–253.
- Global Reporting Initiative (2006) *Sustainability Reporting Guidelines* [online] <http://www.globalreporting.org/> (accessed 21 August 2009).
- Gordon, B. (2002) 'Now and then: revolution in higher education learnings', *Critical Perspectives on Accounting*, Vol. 13, No. 5, pp.575–601.
- Herremans, I. and Reid, R. (2002) 'Developing awareness of the sustainability concept', *The Journal of Environmental Education*, Vol. 34, No. 1, pp.16–20.
- Herzig, C. and Schaltegger, S. (2006) *Sustainability Accounting and Reporting*, Stefan Schaltegger, Martin Bannet and Roger Burrit (Eds.) Published by Springer.
- Hui, L.T. (2008) 'Combining faith and CSR: a paradigm of corporate sustainability', *International Journal of Social Economic*, Vol. 35, No. 6, pp.449–465.
- Hussey, D.M., Kirsop, P.L. and Meissen, R.E. (2001) 'Global reporting initiative guidelines: an evaluation of sustainable development metrics for industry', *Environmental Quality Management*, Vol. 11, No. 1, pp.1–20.
- Jain, S. and Pant, P. (2010) 'Environmental management systems for educational institutions. a case study of TERI University, New Delhi', *International Journal of Sustainability in Higher Education*, Vol. 11, No. 3, pp.236–249.
- Johnston, P., Everard, M., Santillo, D. and Robèrt, K-H. (2007) 'Reclaiming the definition of sustainability', *The International Journal of Life Cycle Assessment*, Vol. 14, No. 1, pp.60–66.
- Lozano, J.M. and Ribera, R. (2004) 'A new chance for management – a new challenge for spirituality', in Zolnai, L. (Ed.): *Spirituality and Ethics in Management*, Issues in Business Ethics, Kluwer Academic Publishers.
- Lozano, R. (2011) 'The state of sustainability reporting in universities', *International Journal of Sustainability in Higher Education*, Vol. 12, No. 1, pp.67–78.
- Lukman, R. and Glavic, P. (2007) 'What are the key element of sustainable university?', *Clean Techn Environ Policy*, Vol. 9, No. 2, pp.103–114.
- Morhardt, J.E., Baird, S. and Freeman, K. (2002) 'Scoring corporate environmental and sustainability reports using GRI 2000, ISO 14031 and other criteria', *Corporate Social Responsibility and Environmental Management*, Vol. 9, No. 4, pp.215–233.
- Musyarofah, S. (2012). 'The relationship between governance on sustainability and performance', *Proceedings*, Vol. I, No. 1, June, ISSN: 2223-5078, presented at the 2012 SIBR-Thammasat Conference on Interdisciplinary Business and Economics Research, Bangkok, 7–9 June.
- Odd, M.N.A. (2003) *The Global Reporting Initiatives: to What Extent Do the GRI Corporate Sustainability Guidelines Enable Business to Move Towards Sustainability?*, Dissertation, University of Calgary, Canada.

- Qablan, A. (2005) *Education for Sustainable Development at the University Level: Interaction of the Need for Community, Fear of Indoctrination, and the Demands of Work*, Dissertation, Digital proquest, UMI Number 3216643.
- Sukoharsono, E.G. (2010) *Metamorfosis akuntansi sosial dan lingkungan: Mengkonstruksi akuntansi sustainability berdimensi spiritual*, unpublished working paper, disampaikan pada Pidato pengukuhan guru besar, Universitas Brawijaya.
- ULSF (2005) *Association of University Leaders for a Sustainable Future: The Declaration*, Vol. 7, No. 2, pp.1–8.
- Wals, A.E.J. and Jickling, B. (2002) ‘Sustainability in higher education: from double think and newspeak to critical thinking and meaningful learning’, *International Journal of Sustainability in Higher Education*, Vol. 3, No. 3, pp.221–232.
- World Business Council for Sustainable Development (WBCSD) (2002) *Sustainable Development Reporting – Striking a Balance*, WBCSD Report, Atar Roro Presse, Switzerland.
- World Commission on Environment and Development (1987) *Our Common Future*, Oxford University Press, Oxford, NY.

Websites

- <http://mq.edu.au/sustainability/sustainabilityreporting/annualreport08.pdf>
- http://www.oseh.umich.edu/pdf/08_report.pdf (accessed 23 January 2012)
- http://www.ppmmanajemen.ac.id/uploads/dirfile_brochure/Sustainability%20Report%20PPM%20Manajemen%202010%20%20Education%20for%20Sustainable%20Future.pdf (accessed 23 February 2012)