

# VISUALLY RE-DESIGN SERVICE PROCESSES FOR QUALITY SUSTAINABLE DEVELOPMENT

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## Abstract

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The purpose of this paper is to review the ways of identifying the process improvement areas with quality sustainable development (SD) mindset via visual process re-design to engage the learners studying service design to become a future sustainable development leader. This paper draws conclusions from a visual service re-design process of establishing an E-platform by undergraduate students with contents related to UN Sustainable Development Goals (SDGs) 3 wellbeing and 4 quality of education. The visual E-platform in ecotourism industry provides a mindset of integration of knowledge, skills, attitudes, perspectives and values of undergraduate students. After reviewing literature on sustainable development mindset, sustainable development goals and corporate social responsibility (CSR), it has been found that the attributes of E-platform creators are – knowing and being; and perception of service re-design – inputs of UNSDGs and UNPRME in ecotourism and system thinking; processes of integrated sustainable issues affecting the outputs of service innovation related to quality sustainable development. Though the findings are of managerial relevant to sustainable development mindset, responsible management education and service design, validation of the E-platform with on-going quantitative and qualitative data are required for a holistic view of building a sustainable development mindset with innovative integration of ecotourism processes. The ultimate output of the paper is an integrated E-platform of ecotourism with multi-disciplinary knowledge. Therefore, academics, industry practitioners, NGOs and policymakers shall consider these findings when exploring the ways of establishing sustainable development mindset in an innovative way in ecotourism.

**Keywords:** Quality Sustainable Development (QSD) Mindset, Sustainable Development Goals (SDGs), CSR

## 1. INTRODUCTION

Facilitating organizational change via innovations for sustainable development continues to be one of the major challenges in corporations of different nature. The phrases of sustainability and corporate social responsibility (CSR) have been used interchangeably in the past few years. Organizations of different nature are seeking ways to enhance business growth, for example, designing innovative products and services, re-visiting the operations flow management system, and re-examining the outsourced business partners for quality. Based on United Nations (UN),

the Rio+20 outcome document, The Future We Want, it mentioned that People are the centre of sustainable development; and Rio+20 promised to strive for a world that is just, equitable and inclusive, and committed to working together to promote sustained and inclusive economic growth, social development and environmental protection to benefit all. However, it is found the ways of reaching UN Sustainable Development Goals (SDG) were not covered comprehensively in the past years. For example, Goal 4 'Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all'; Goal 8 'Promote sustained,

inclusive and sustainable growth, full and productive employment'; and Goal 17 'Strengthen the means of implementation and revitalize the global partnership for sustainable development'. In 2009, Wirtenberg uncovered seven qualities for building a sustainable enterprise, they were: top management support, centrality to business strategy, values, metrics, stakeholder engagement, systems alignment and organizational integration. From the findings of Wirtenberg, it was found that system alignment and organizational integration were the weakest dimensions of most enterprises. Hence, it is worthwhile to explore how to integrate people development into organizational systems with an innovatively sustainable development mindset for achieving SDGs of UN.

According to Kerul et al. (2016), a Sustainability Mindset is intended to help individuals analyze complex management challenges and generate truly innovative solutions. The Sustainability Mindset breaks away from traditional management disciplinary silos by integrating management ethics, entrepreneurship, environmental studies, systems thinking, self-awareness and spirituality within the dimensional contexts of being (values), thinking (knowledge) and doing (competency). Kerul et al. (2016), Krafft and Ravix (2007) highlighted that multi-disciplinary knowledge for developing a sustainability mindset was crucial. Besides, Kerul et al. (2016) provided a framework of "Sustainability Mindset" with the elements of:

1. How individuals' view of the world and their role/place in it;
2. How individuals' view linking up with their assumptions, beliefs, and values; and
3. How individuals incorporate sustainability mindset systematically to understand the ecosystem of a society.

The definition of Sustainability Mindset put forward by Kerul et al. (2016) involves content areas, dimensions, and components (see Appendix A). This paper is to build on the framework of Kerul et al's Sustainability Mindset Model with four dimensions: Ecological Worldview, Systems Perspective, Emotional Intelligence and Spiritual Intelligence. Applying the four dimensions into seamless and innovative assessments for helping learners to build a sustainability mindset with knowledge of the society where they live, with values (being) that they believe with interconnectedness, and competency (doing) in identifying feasible and innovative solutions for new problems.

This chapter begins with literature and trends in business and management education, corporate social responsibility (CSR) and innovations for sustainability. The ultimate aim of this chapter is to align with 2016 Policy Address of the Hong Kong Government in addressing the need for harmony and solidarity in our society (para 5) and intend to develop innovative use of visual message (e.g. video/movie) to conserve our inner values of our society. For example, respect, persistence, harmony and the 17 United Nations Sustainable Development Goals (SDGs) and the six principles of UN Principles for Responsible Management Education (PRME) with local, regional, and international context.

In 2015 Policy Address of the Hong Kong Government, we also realize that the Hong Kong's

cultural and creative industries have grown at a rate faster than the overall economy in recent years. According to the Policy, the value added to the cultural and creative industries increased rapidly at an average annual rate of 9.4 from 2005 to 2012. We believe the video/ movie is a channel of promoting inner values, UN SDGs and UNPRME, which are welcome by our App Generation. In fact, the innovative use of video/ movie to promote inner values and UNSDGs and UN PRME can help to create decent job opportunities with entrepreneurship spirit relevant to the UN Sustainable Development Goals (SDG) – 8.3.

"Promote development-oriented policies that support productive activities, decent job creation, entrepreneurship, creativity and innovation, and encourage the formalization and growth of micro-, small- and medium-sized enterprises, including through access to financial services."

Objectives:

– To facilitate learners to use integration of knowledge with technology to convey inner values of UNSDGs and UNPRME; and

– To share the good practices of visual service re-design process for inner values, for example, responsibility and harmony in ecotourism working towards UN sustainable development goals.

## 2. LITERATURE REVIEW

In line with the UN Decade 2005-2014 on sustainability, many research papers have been found on the sustainable development (SD) in the higher education sector. Different institutions have their own interpretations of sustainable development. In general, sustainable development is related to economic, social and environmental impacts with the responsible decision making in allocating resources to meet the present and future needs of a society. This links up to the way of management in defining and interpreting sustainability when setting and implementing their short and long-term strategic goals with total involvement of academic and administrative staff. Buying in the concept of sustainable development is the first and the most significant step in implementing sustainability-related actions in an institution as the perception of staff on SD well relates to their understanding of and exposure to sustainability.

According to the definition of Brundtland Commission (1992) of the United Nations, "sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs." The basic element of sustainability is the economic aspect to support the business in the short term, and support the new products, services, processes and people in the long term. In global initiatives of the "United Nations (UN) Decade of Education for Sustainable Development" (DESD) 2005-2015, the mission of DESD outlined by United Nations United Nations Educational, Scientific, Cultural Organization (UNESCO) is to meet the needs of the present without compromising those of future generations. Education is to learn how to learn, un-learn and re-learn through on-going helping people develop values, skills, attitudes, and knowledge with

the principles, values and practices of sustainable development. And this kind of proactive thinking has to be integrated into all aspects of education and training to people in all nations at different ages to develop economic, social, environmental and cultural awareness and to seek solutions for these problems. Hence, ESD is relevant to all nations and all higher institutions. Management in higher educational institutions need to keep on practising the rationale of ESD beyond 2015 through integrating ESD in their institutional operational level in setting strategic goals and performance indicators, and school/programme level in re-visiting the curriculum for the benefit of learners and the community.

As mentioned by UNDES, quantitative and qualitative ESD indicators are needed to be incorporated into different aspects of education for regular monitoring and reviewing purposes. This paper is going to adopt the six principles of UNPRME and 17 UN SDGs with the CSR guidelines of ISO 26000 to present a project of video production for capacity building in terms of building learners' creativity, team spirit, communication and enhancing teachers' innovations in assessing learner's competency to become a future leader with sustainable development mindset.

### 3. FROM SUSTAINABLE DEVELOPMENT (SD) TO SUSTAINABLE DEVELOPMENT/ SUSTAINABILITY MINDSET

In recent years, the higher education sector has started to address the issues of sustainable development in their operations and curriculum design. This has created a dramatic need of educators, especially curriculum designers, with a mindset of sustainability and social responsibility (SR); and the skills of writing sustainability-related reports to communicate with stakeholders for accountability and transparency. This triggers the author to study the elements of sustainable development and sustainability mindset to align with the UN PRME principles and UN SDGs for developing learners to become a future leader with SD mindset for economic, social and environmental impacts.

The purpose of this paper is to explore the application of the Sustainability Mindset Model of Kerul et al. (2016) with the six principles of UN PRME, the 17 UN SDGs with the seven dimensions of ISO 26000 Corporate Social Responsibility (CSR). Guidelines to identify the steps of designing relevant sustainability-related activities to assess learners with knowledge (thinking), values (being) and competency (doing) in the four dimensions of ecological worldview, systems perspective, emotional and spiritual intelligence to fill the gaps between academics and industries in terms of developing talents with relevant knowledge, skills, attitudes and values for the future.

According to the information released in HK government website, the concept of sustainable development is adopted from the World Commission on Environment and Development that "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Our Common Future, 1987). Based on information from HK government website, it seems the focus is more on UN SDG 11 Sustainable

Cities, SDG3 Good Health and Well Being, SDG 6 Clean Water, SDG7 Clean Energy and 13 Climate Action that "building Hong Kong into a world-class city and making Hong Kong a clean, comfortable and pleasant home would require a fundamental change of mindset" to achieve the following three main areas:

- Finding ways to increase prosperity and improve the quality of life while reducing overall pollution and waste;

- Meeting our own needs and aspirations without doing damage to the prospects of future generations; and

- Reducing the environmental burden we put on our neighbours and helping to preserve common resources ("1999 Policy Address").

However, more efforts are needed in the higher education sector to engage learners, design curriculum, deliver materials, assess learners and help students/ teachers/ administrative staff to build a SD mindset to achieve the above three main areas.

### 4. SUSTAINABLE DEVELOPMENT AND KNOWLEDGE-BASED ECONOMY

The concepts of sustainable development have been most debated subjects and of great importance in the future, especially in the higher education sector where learners are educated to prepare how to face the challenges for the future and how to develop themselves personally and professionally in a sustainable manner. Szitar (2014) and Ponsard (2005), Apreda (2006) mentioned that community development was related to sustainability which needed to have stakeholder collaboration, linking up changes with sustainability, adopting interdisciplinary and multidisciplinary approach in teaching in architectural education, for example, case study and PAPSA (Presentation, Analysis, Production, Selection and Application) methods and providing solutions in a holistic manner. Pinho et al. (2015) also the university not only enabled professional growth but also in the personal level (p. 162). Besides, they highlighted that contextualization in crucial in university education, including creating a variety of contexts for learners learning how to perceive the world, how to handle adverse situation, how to develop belonging to the syllabus, how to experience practical contents, and how to create professional network via opportunities in extracurricular activities that are complementary to their studies.

In fact, Gedzune (2013), Gedzune and Gedzune (2012), Umans (2013) and Pohl et al. (2010) also mentioned that teacher training and engagement with reflection, action research and co-production of sustainability-related research were needed to understand the importance of a broader and inter-relating perspective on issues related to sustainable development for the future. Back to 2005, Kitagawa pointed out that the role of universities in the knowledge society was examined in light of the emergence of new research and learning systems, conditioned by forces of both globalisation and regionalization with impacts of these new relationships perceived in four principal dimensions: economy, human resources, governance and community. Based on UN SDG 4 Quality Education, it is expected to increase the supply of qualified teachers, including through international

cooperation for teacher training in developing countries. Hence, the objectives of this chapter is not only to facilitate our young people to use technology to convey stories of inner values and UNSDGs and UNPRME to share the good practices of video produced for inner values, for example, responsibility and harmony in different industries working towards UN sustainable development goals. But also identify the potential use of the completed video/movie in seamless teaching and learning and in building a platform of knowledge exchange for developed and developing countries.

As we know, the economic development of most countries is now turning from manufacturing into service production which calls for talents with professional knowledge, skills, attitude and values. Kivunja (2015) brought up that the economies had been increasingly globalised with digital technologies assuming ubiquitous presence and functional utility in peoples' lives outside educational contexts. He mentioned that educationalists needed to prepare learners for the Digital Economy, requiring the teaching of new skills rather than the traditional core subjects. Kivunja (2015) named this realization as a New Learning Paradigm, teaching students with skills most demanded in the 21st century. He put forward the 4Cs super skills, that is, critical thinking skill, communication skill, collaboration skill and creative skill. If learners are taught with these four super skills with sustainability contents and community development mentioned by Szitar (2014) and contexts for development mentioned by Pinho et al. (2015), it is assumed that the community will be a better one under knowledge-based economy within a digital technology environment.

## 5. DESIGN THINKING FOR SUSTAINABLE INSTITUTION

Problems that we come across may not be the same as those in the past. Hence, a new perspective for problem-solving is needed for sustainable development. Mootee (2013, p.39) put forward the idea of design thinking, a natural and inherent thinking, which was an approach to inquiry and expression that complemented and enhanced existing skills, behaviors, and techniques. He mentioned that design thinking was a data-driven analytical thinking with its own mode of analysis - one that focused on forms, relationships, behavior, and real human interactions and emotions. He recommended that design thinking could be applied in the following ways in which they were relevant for sustainable development in higher education:

- 1) How a product, service, system, or business currently lives in an ecosystem;
- 2) How people interact with the above and the nature, frequency, and attributes of that interaction;
- 3) How the different elements in the ecosystem relate to one another and if any systems-level impact exists;
- 4) What other ecosystems exist adjacent to your ecosystem;
- 5) How new insights may be gained by looking broadly at communicative events within these ecosystems and how they fit together from a systems perspective;

6) What the key characteristics and patterns of behavior of new relationships are when viewed from a system level; and

7) What the patterns of people's information behaviors are and how to map them visually to make sense of them" (Mootee, 2013, p. 39)

From the above, design thinking can empower organizations and individuals to better understand their competitive and operational environment for perceiving and solving problems with the realization of behavioral patterns, values attached to systems-level and processes of meeting challenges.

Apart from a system level, a process of level in programme/module design with sustainable development and social responsibility are also needed to be addressed. In the 17th International Conference on Teaching and Learning organized by UNESCO-APEID, Bajunid (2014) mentioned that any radical turning points in professional policy shifts required mid-set changes in teachers regarding their beliefs, assumptions, out the box thinking, time management, creativity, edupreneurship and weltanschauung. "The emerging of basic literacies and new literacies demand continuous learning by the teacher as perennial learner". Bajunid (2014) also quoted the code of practice for quality assurance in public universities in Malaysia developed by the QA Department of the Malaysian Ministry of Higher Education (2008) that the key foci of programme quality were: conceptual framework, knowledge, skills, content knowledge, pedagogical content knowledge, pedagogical and professional knowledge and skills, professional disposition and assumption system with evaluation, field experience and clinical practice, diversity, faculty qualifications, performance and development, unit governance and resources (p.6). Moreover, he highlighted that all programmes objectives should align with the following learning outcomes:

- 1) Knowledge;
- 2) Practical Skills;
- 3) Social Skills and Responsibilities;
- 4) Communication, Leadership and Team Skills;
- 5) Problem-solving and Scientific Skills;
- 6) Information Management and Life-long Learning Skills; and
- 7) Management and Entrepreneurship Skills.

Yeung (2014) echoed the ideas of Bajunid (2014) that the following four characteristics were desirable for a socially responsible teacher in the future teaching under the digital age. Teachers need to develop techniques to cater a diversified group of students through traditional and non-traditional classroom setting, for example, blending learning and virtual learning environment to motivate students as co-producers for meaningful and relevant curriculum. The eight characteristics are:

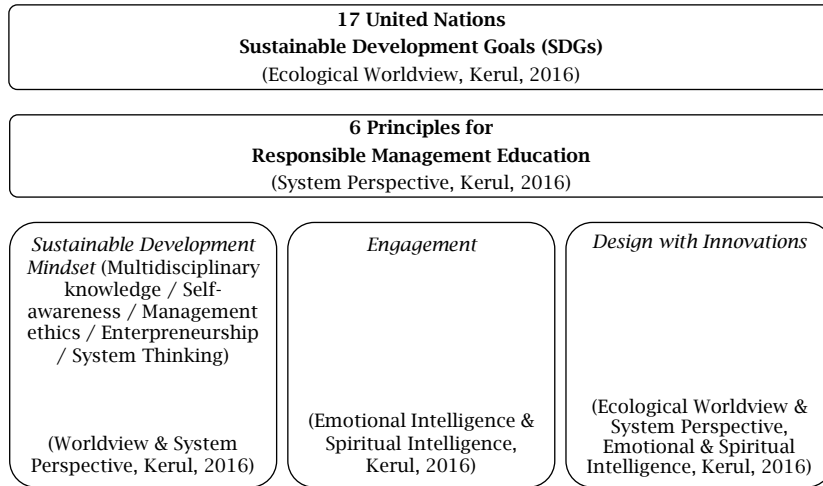
- 1) Knowledge and Intellectual Skills - Multi-disciplinary knowledge and multi-thinking with a mindset of change
- 2) Processes - Value creation and waste reduction via curriculum review and revision
- 3) Autonomy, Accountability and Application - Acceptance of professional responsibility with people respect and continual improvement
- 4) IT, Numeracy and Communication -

Using technology and information with environmental concerns in teaching and curriculum design

In 2010, Fisher realised that corporate sustainability/social responsibility was of utmost importance for the survival of organizations and their future generations of employees. "Organizations' product/service offerings and vendor networks are interconnected globally and are being recognized on a global scale" (P. 29). If educators can visualise the sustainable development goals of UNESCO, crystallize the manpower

projection into curriculum design, can realise the ways of implementing 4Cs into designing community development-related programmes, the institution is working towards a sustainable organization for the benefit of learners, the industries, and the community as they can develop awareness of sustainability and social responsibility to their peers and influence students to learn in a sustainable way. Based on the literature of the above, the author has generated a model of the sustainable institution (see Figure 1).

**Figure 1.** SY model on sustainable development

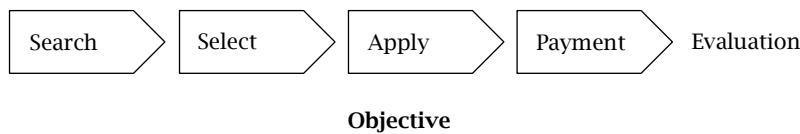


**6. METHODOLOGY - INQUIRY AND ACTION LEARNING APPROACH FOR A MINDSET OF INTEGRATION**

When customers who are interested in joining ecotourism "Responsible travel to natural areas that conserves the environment and improves the well-being of local people" (TIES, 1990). Customers usually search such information from online and actual catalogues individually. For some of the tour service

providers, they are held by the small-scale non-governmental organization (NGO) in Hong Kong for the local customers. For their general application process, customers could fill in a form after searching and selecting a trip that they prefer. NGOs usually accept cash and banking deposits. After the completion of a tour, the tour service provider would also collect feedback by collecting evaluation forms from customers for satisfaction and improvement. The service process is shown in the following diagram.

**Figure 2.** The diagram of service process



The recent process requires customers to search for the related information and conduct the process individually or through some other middlemen organizations. The re-designed process not only beneficial to the industry, but also to the society. The process is suggested to be re-designed with the three following objectives:

- 1) Raising the awareness of eco-tourism,
- 2) Conveying the message of caring and
- 3) Appreciating the natural environment.

It is expected that customers' well-being and a sense of belonging to the community will be developed.

**7. SERVICE PROCESS**

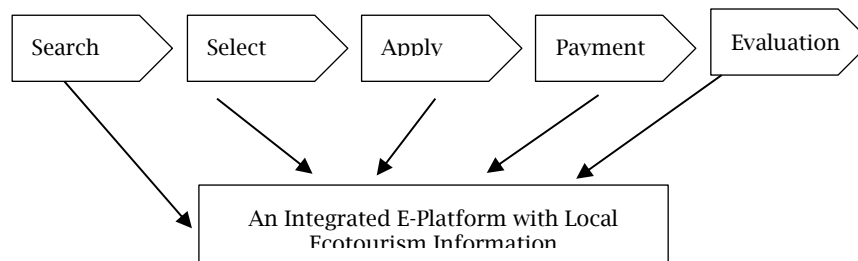
The process is designed as an informative self-serving platform, which is a technological platform providing information about the eco-tours, the sequencing service from registering an ecotourism trip to evaluating the trip. All scaled organizations and NGOs with ecotourism activities are welcomed to join the E-platform. An outcome would be all existing ecotourism application processes combined with this extended process of E-platform. The E-platform gives benefits to customers in terms of saving cost, gathering more quality information of ecotourism

service provider. There are two significant changes in the extended process. Firstly, the paperwork of applications from customers will be reduced. Consumers can apply tours through e-form and do e-payment in the following step. Secondly, the digital environmental-friendly evaluation form of post-tour can add value to ecotourism service providers to improve overall services.

Other benefits are:

- An extended process design with characteristics of saving time/cost but increasing quality flexibility (see a diagram of below);
- Value creation via e-payment and e-evaluation; and
- Self-serving platform with informative and with technology.

**Figure 3.** An integrated E-Platform with local ecotourism information



A survey after launching the application of E-platform can be conducted to evaluate the convenience of using online payment; and rich information in E-platform for improving service quality will be identified. The E-platform service mainly targets Hong Kong people who are interested in ecotourism services with an educational value of appreciating the nature. Identified potential customers also include visitors from overseas. As people might not be available to show up for application and payment, like working or staying outside of Hong Kong. The process could satisfy their needs and offer ecotourism trip attended through social media. This E-platform is a new opportunity for collecting on-going feedback from customers for fine-tuning service quality. Moreover, NGOs could benefit from the feedback via reports generating from the E-platform to improve their services and operations on a limited budget. This E-platform makes time and cost efficient and manage the processes with quality to reach key performance indicators, for example, the number of visitors visiting the E-platform, the number of applications and comments received. It could also review the

process efficiency and increase the awareness of Hong Kong people on ecotourism.

## 8. CONCLUSION

Based on the E-platform of services re-design in ecotourism industry and Figure 1 - SY Model on Sustainable Development, the identified visual E-platform in ecotourism industry provides a mindset of integration of knowledge, skills, attitudes, perspectives and values of E-platform creators.

After reviewing literature on sustainable development mindset, sustainable development goals and corporate social responsibility (CSR), it has been found that the attributes of E-platform creators are - knowing and being; and perception of service re-design - inputs of UNSDGs and UNPRME in ecotourism and system thinking; processes of integrated sustainable issues affecting the outputs of service innovation related to quality sustainable development.

However, sustainable lifestyle in ecotourism was seldom mentioned in the documents for quality assurance and quality sustainable development.

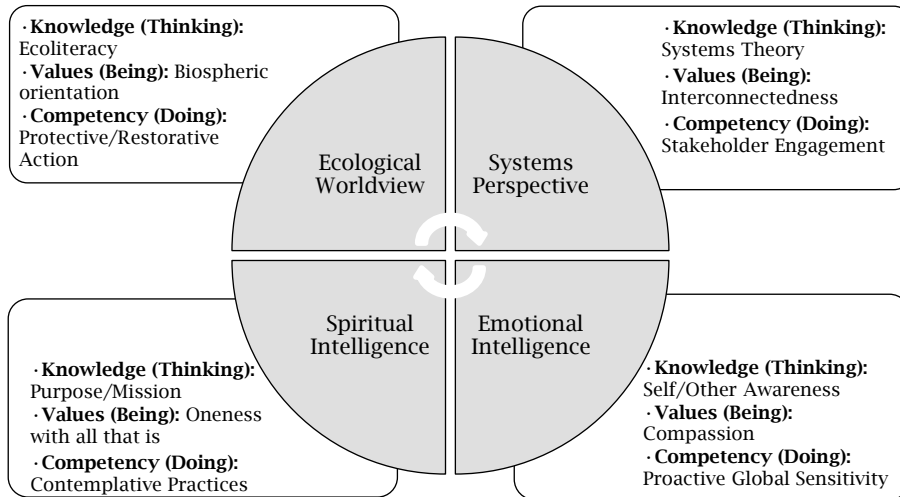
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### Appendix A. Sustainability mindset model



Source: Kerul et al. (2016)