Sustainability Reporting of Leading Global Universities in Asia, Europe, and USA

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Abstract

Sustainable development as a concept is a significant landmark in the environmental theory because it hypothesizes on how society itself should be organized, and not merely on why certain environmental safeguards should be embraced or how they can be best applied. Our study determined the sustainability reporting of selected leading global universities in Asia, Europe, and the USA. Using the descriptive and comparative research designs, fifteen higher educational institutions from leading global universities with business schools and institutional sustainability development programs were used as sample cases. Based on the universities' published Sustainability Reports, several patterns of sustainability reporting practices appeared to be being used. Results revealed that all the sampled universities in Asia, Europe, and USA publish their Stand-Alone Sustainability Reports annually, as well as publish parts of their sustainability performance in their Annual Reports at the end of every academic year. These reports are made available in their websites year-round. Findings also showed that in terms of reporting framework, the universally recognized Global Reporting Initiative is predominantly used by universities in Asia and Europe, followed by the Environmental Management System certifiable under ISO 14001 standards. USA universities, however, use a combination of standards, some not formal, but patterned it after the models such as the UN Global Standards, Corporate Knights, International Sustainability Campus Network/GULF Framework, and People and Planet Green League. Among the four priority concerns on sustainability reporting, environmental indicators obtained the highest average frequency; followed by governance, social, and economic indicators among the three regions, led by Europe and US universities. Overall, the level of sustainability disclosure is high in all the four indicators, and it is highest among European universities, followed by US universities, and then by Asian universities. We recommend that Philippine universities benchmark their sustainability reporting practices in the manner by which leading global universities practice them.

Keywords: sustainable development, governance, environmental impact, sustainability reporting, triple bottom line

"Sustainable development is 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, WCED, 1987).

Introduction

Background of the Study

Sustainable development as a concept is a significant landmark in the environmental theory because it hypothesizes on how society itself should be organized, and not simply on why certain environmental safeguards should be embraced or how they can be best applied. This determined interpretation is extensively shared by business leaders, policy activists, and academics alike (Taylor, 2002), and now by government and church leaders who are stewards of God's creation.

Sustainable development, as a model, came into view in the 1970's, concurrently with the escalating industrialization. Simultaneously with the report called "Our Common Future" published by the World Commission on Environment and Development in 1987, the theory of sustainable development, which has the principle of increasing development in consideration with the environment, created a center of attention (Ercoşkun, 2005) in many parts of the world, especially in Europe. The underpinning framework of sustainability is the triple bottom line (TBL) management concept which was coined in 1994 that examines the firm's social, environment, and economic impact (Elkington, 2018). The main intent of TBL is to persuade businesses to track and manage social, environmental, and economic (not just financial or profit)   value added or value destroyed as well as incite profound thinking concerning capitalism and its future (Elkington, 2018).

The publication in 1987 of 'Our Common Future' (also known as the Brundtland Report), presented the most frequently used definition of sustainable development, which is development that "meets the needs of the present without compromising the ability of future generations to meet their own needs." This principle has massive human appeal and has withstood the test of time (World Commission on Environment and Development, 1987).

For such an advanced model to be more than just words, the signatories to the 1992 Rio Declaration realized that they had to be able to measure and evaluate progress towards the objective of sustainability. Thus, in "*Agenda 21",* they advocated countries to design the concept of indicators of sustainable development in such a way that will lead to self-determining sustainability of combined environment and development systems. A decade later, there is still no globally concurred method of measuring sustainability. During the World Summit on Sustainable Development (WSSD), countries again promised that they would, through the *Plan of Implementation,* exert additional efforts on designing the method of measuring sustainability. But there is no assurance, however, as to whether further advancement will be fulfilled in the next decade than has been accomplished since Rio (Vitalis, 2003).

Concurrently, education at all levels can form the world of tomorrow by endowing individuals and societies with the skills, viewpoints, knowledge, and values to live and toil in a sustainable manner (UNESCO, 2003). In this regard, the concept of life-long learning has been raised as a key thrust to accomplish sustainability. But major transformation in education and training are necessary to meet the demands of the 21st Century and impact of the advent of the 4th Industrial Revolution or Industry 4.0. The people they educate and train to become managers of firms and leaders of the nations should possess better appreciation of the interdependence of the economy, environment, and social issues; greater understanding of interrelationships and systems by thinking, consensus building, and decision-making; and the ability to recognize both sustainable and unsustainable practices. As educated stewards of God creation, they will be challenged to shape a sustainable future, so that they will discern and reflect on the outcomes of their behavior, decisions, and actions.

For the past three decades, sustainability has been a burning subject matter in the official agenda of private sectors, governments, and academic institutions. So far, although numerous of the goals laid down have been achieved, there are still a lot more to be done. Traditionally, higher learning institutions, called universities, have played a dynamic role in society by shaping the future leaders and citizens (Mendoza and Terpou, 2014). They should serve as core advocate agents in promoting sustainability. Universities in many parts of the world recognize that they have a responsibility to contribute towards national and global efforts in combating climate change. Therefore, sustainability guides many of the universities' operational efforts, from master planning and design, to construction and maintenance. Likewise, this approach is

applied to building, retrofitting, and operations, as well as protecting and enhancing biodiversity. To diminish the Universities' environmental impact arising from resource use and transport, they recurrently look at ways to lessen consumption and expand resource efficiency in the areas of carbon emissions and energy management; green spaces; water management; food and living; transportation; and nature and wellness.

Sustainable Development

The concept of sustainable development created the basis for the holding of the United Nations Conference on Environment and Development in 1992 in Rio de Janeiro. The meeting marked the first global attempt to draw up action plans and strategies for moving in the direction of a more sustainable model of development. It was attended by over 100 Heads of State and representatives from 178 national governments. The Summit was also attended by representatives from an array of other organizations embodying civil society. Sustainable development was considered to be the solution to the problems of environmental degradation tackled by the Brundtland Commission in the 1987 report on "Our Common Future".

The main purpose of the Brundtland Report was to look into the many concerns that had been raised in the past thirty years. These concerns pertain to the following: that human activity was having severe and negative impacts on the planet, and that patterns of growth and development would be unsustainable if they continued unchecked. Key works that highlighted this thinking included that of Rachel Carson's "Silent Spring" (1962), Garret Hardin's "Tragedy of the Commons" (1968), the "Blueprint for Survival" by the Ecologist magazine (1972), and the Club of Rome's "Limits to Growth Report' (1972).

The concept of sustainable development received its first major global recognition in 1972 at the UN Conference on the Human Environment held in Stockholm. The term was not referred to clearly, but still the international community agreed to the notion − now fundamental to sustainable development − that both development and the environment, until now addressed as separate issues.'

Moreover, the term sustainable development was popularized 15 years later in "Our Common Future", the report of the World Commission on Environment and Development, which consisted of what is considered the standard definition of sustainable development: "development which meets the needs of the present without compromising the ability of future generations to meet their own needs".

It was not until the Rio Summit, that major world leaders recognized sustainable development as the major challenge it remains in the present day. More recently, the World Summit on Sustainable Development was held in 2002 Johannesburg, attended by 191 national governments, UN agencies, multilateral financial institutions, and other major groups, to assess progress since Rio. The Johannesburg Summit delivered three key outcomes: a political declaration, the Johannesburg Plan of Implementation, and a range of partnership initiatives. Key commitments included those on sustainable consumption and production, water and sanitation, and energy.

The Brundtland Commission's brief definition of sustainable development, as the "ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs", is surely the standard definition when judged by its widespread use and frequency of citation (Kolukisa & Ugurlu, 2019). The use of this definition has led many to grasp sustainable development as having a main concentration on intergenerational equity. Although the brief definition does not obviously mention the environment or development, the following paragraphs, while hardly quoted, are distinct. On development, the report states that human needs are basic and essential; that is economic growth—but also equity to share resources with the poor—is required to sustain them; and that equity is encouraged by effective citizen participation (Kates, 2005 as cited in Mendoza and Terpou, 2014).

University Activities: Central Roles and Core Functions

Historically, universities have played an active role in society by shaping the minds and hearts of its future leaders and citizens. The central roles for universities have been to: (1) educate; (2) provide human resources for innovation and research; and (3) provide other services, but these are now altering and shifting to address the current societal challenges (Mendoza and Terpou, 2014).

The realization that universities should serve as core advocate agents in promoting sustainability has led to the formation and application of several tools and guidelines that focus on sustainability in universities. The available tools and guidelines consider the impacts−positive or negative−of the university's most relevant activities; these being education, research, community outreach, campus operation, and management (Global Reporting Initiative, 2013a).

CHED's ISA Framework of Core functions of Higher Educational Institutions

In the Philippines, the Commission on Higher Education (CHED), pursuant to the goals of the government to align its quality framework with international standards and specifically with ASEAN, released in 2012, its Policies, Standards, and Guidelines (PSG), through CMO 46, Series 2012. This shifted Philippine higher education toward an "Outcomes-Based Education (OBE) and Typology-Based Quality Management System in Higher Education Institutions". Thereafter, it issued an ISA Handbook promoting Institutional Sustainability Assessment (ISA), which can serve as a learning process for the Higher Education Institutions and contribute to its continuing quality cycle. The ISA is developmental in nature and involves a more reflective review of the institution's vision-mission-goals (VMG) and desired outcomes. The ISA Framework has five key result areas within which assessments are made about the performance of institutions:(1) Governance and Management (including Management of Resources); (2) Quality of Teaching and Learning (competency, programs, faculty); (3) Quality of Professional Exposure, Research, and Creative Work (including linkages); (4) Support for Students (learning resources and support structures); and (5) Relations with the Community (extra-curricular linkages, service learning, and outreach) (CMO 46, Series 2012).

Within each key result area, there are a number of indicators. Some of these are core indicators that apply to all institutions. While the other indicators apply to institutions to the extent that is appropriate in relation to the mission and stage of development of the institution. There is a total of fourteen indicators, eight of which are core indicators. One of these indicators is on sustainability or sustainable development programs, which could be the basis of the institution's "outcomes". These are summarized as Sustainability Report for the academic calendar year, either as a part of, or separate from, the Annual Year-End Performance Report of the institution.

Sustainability Development Reporting Tools, Standards and Guidelines

There are various available tools and guidelines for measuring, assessing, tracking, documenting, managing, and reporting sustainability practices in universities. Some tools and guidelines used by universities are particularly designed for HEIs, while others are designed for corporations, regions, or countries. The tools and guidelines vary meaningfully from each other. However, some patterns

can be distinguished when studying the characteristics of each tool and the context in which it was developed.

In the 90's, four sustainability declarations took place which targeted the higher education sector. The first one was the Talloires Declaration in 1990. The declarations claimed that accountability and responsibility form part of the universities to address sustainability mainly through leadership and sustainable physical operations. Subsequently, tools and guidelines began to be developed for or adjusted to universities (COPERNICUS Alliance, 2012). From 1992 to 1996, three auditing and management tools were developed, which focused on environmental systems management: British Standard 7750, ISO 14000, and EMAS. In the years to come, more tools that focused on environmental system management were developed: Environmental Management System Self-Assessment Checklist (1996), Environmental Performance Survey (1996), and HEPS RT (2000). In 2000, the GRI Guideline was developed, considering a wider perspective of sustainability which focused on the economic, social, and environmental impacts of an organization (Mendoza and Terpou, 2014).

Statement of Research Problem

In this paper, we aimed to answer the main research question: what are the sustainability reporting practices of selected leading global universities in Asia, Europe, and the United States?

Statement of Specific Objectives

More specifically, we aimed to achieve the following objectives:
1. To determine the sustainability reporting characteristics of the global universities, in terms of their medium and frequency of communication of sustainability, as well as the reporting framework (tools, standards, and guidelines) they use, such as Global Reporting Initiative (GRI), and other models (e.g. ISO 14001 EMS, UN Global Impact, etc.).
2. To describe the specific priority concerns disclosed in the sustainability reports of the global universities, classified according to the following indicators: governance, economic, environment, and social.
3. To analyze the level of sustainability disclosure in the reports of the global universities in terms of the following indicators: governance, economic, environment, and social.

4. To compare the different sustainability reporting practices of the selected global universities in Asia, Europe, and the United States.

Conceptual Model and Operational Framework

Conceptual Framework

Our underpinning conceptual framework is founded on the Brundtland Commission's definition of sustainable development, which is the "ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" and is assuredly the standard definition when judged by its prevalent use and incidence of citation (Kolukisa & Ugurlu, 2019).

We noted that various descriptions of the four concepts of sustainable development can be found in the literature. But the most specific one focusing on higher education is that of the Sustainability Report on Universities by Mendoza &Terpou (2014).Their work presents a study on how universities report on sustainability in relation to four concepts: *knowledge triangle*, *quadruple helix*, *utilization,* and *resilience*. We used specifically the Knowledge Triangle Model as our main Sustainability Conceptual Framework, which is discussed briefly as follows:

The *knowledge triangle* is the interaction between education, research, and innovation, which are the drivers for knowledge-based society. The *knowledge triangle* concept was introduced by the Lisbon Agenda at the dawn of the 21st century (Commission of the European Communities, 2006). It is within this concept that a more systemic approach is taken, that not only acknowledges the importance of each of the three pillars, but also the interaction between them in order to create knowledge and other positive externalities to society (Schruumanns, 2009). Within the academic debate it is undisputable that knowledge is the means to finding solutions to complex challenges such as climate change (Carayannis, Barth, & Campbell, 2012). Knowledge is linked to social and economic development, and it is even said that knowledge is replacing physical resources as the key driver of economic growth (Commission of the European Communities, 2006; Sörlin, 2009).

In more practical terms, the *knowledge triangle* seeks to cultivate a swifter transmission of knowledge into tangible and functional innovations–be it academic, industrial, or societal, through the implementation of definite platforms and processes between the three

corners of the triangle and vigilantly coordinating their functioning (Commission of the European Communities, 2006).

The *knowledge triangle* facilitates 'knowledge-based innovations'. Innovation has been positioned at the heart of the European 2020 strategy as it is the most excellent way for addressing multifaceted and escalating urgent challenges, like climate change, resource scarcity, energy supply, among others (The Commission to the European Parliament et al., 2010). Innovation is not only about looking for technical solution to present problems, but also social answers, therefore, it is also an issue of altering mind-set and culture (Blessing, 2009).

Universities are key players in fostering the *knowledge triangle* because they are one of the most stable actors in society, and they are the only actor in which the three activities take place (Holmberg, 2014). The worldwide challenges facing the global community cannot be effectively addressed devoid of the contribution of knowledge-based innovations drawing on all areas of education and research, together with humanities, social sciences, and the arts (Flodström, 2009), Martin Schruumans, chairman of the European Institute of Innovation and Technology, stated that there was an urgent need of increasing the amount and quality of innovation in universities (2009). It is emphasized in a number of policy statements that higher education institutions have a central role in building a Europe where the long-term effect of knowledge-building can be gauged in terms of economic, social and ecological progress (Lappalainen & Markkula, 2013).
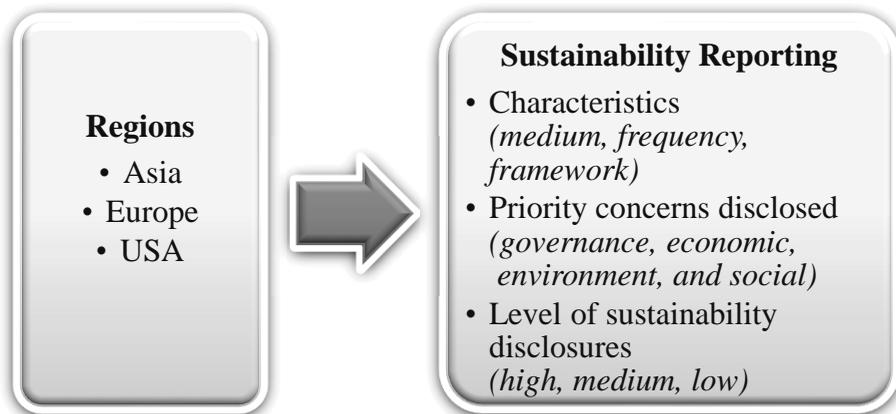
Operational Framework

Figure 1: Operational Framework of the Study

Our review of literature led us to craft an operational framework (shown in Figure 1) by which our specific research objectives can be answered. First, we considered that the sustainability report has characteristics, such as medium and frequency of communication and the framework of reporting. Then, we examined the sustainability priority concerns related to governance, economic, environmental (e.g. energy, water, carbon emission, ecology, transportation, green spaces, etc), and social, that are incorporated in their Sustainability Report for the year, and compare them across the regions of Asia, Europe, and the USA.

Methodology

We used the descriptive and comparative research designs to determine the sustainability reporting practices of the 15 leading global universities and compared them across the regions of Asia, Europe, and the USA.

Our research approach is a qualitative archival method on the universities' published Sustainability Reports on their websites, to seek answers to the specific objectives and central research question we posed at the start of the research.

The sample cases in this study are15 leading or top global universities with business schools and institutional sustainability development programs located in Asia, Europe, and the USA. Our selection criteria included the following: (1) top university (acknowledged leading schools or those belonging to the top world universities published by the Quacquarelli Sysmound (QS); (2) has a renowned business school; and (3) has published sustainability report in 2017 or latest accessible in their web. For Europe, we had selected Oxford University, University of London, Cambridge University (Judge Business School), INSEAD, and ETH Zurich. While for the USA, we chose Harvard University, Columbia University, Wharton School of the University of Pennsylvania, University of California at Berkeley, and Massachusetts Institute of Technology (MIT)-Sloan. In Asia, we included Ateneo de Manila University, National University of Singapore (NUS), Hongkong National University of Science and Technology (HK-NUST), Melbourne University, and University of Indonesia.

We used descriptive statistics like frequency counts and weighted means as well as content analysis of information of the Sustainability Reports in 2017 which are available from their University

Website. We also reviewed other supplementary reports that are necessary such as Strategic Plan, Operating Plan or Annual Performance reports.

RESULTS AND DISCUSSION

Sustainability Reporting Characteristics

Medium of Communication

Table 1.
Medium of Communication per Region

Region	Medium		
	Annual Report	**Stand-Alone Sustainability Report**	**University Website**
Asia			
Ateneo de Manila	Yes	Yes	Yes
Hongkong University of Science and Technology	Yes	Yes	Yes
National University of Singapore	Yes	Yes	Yes
University of Indonesia	No	Yes	Yes
University of Melbourne	Yes	Yes	Yes
Europe			
Cambridge University-Judge Business School	Yes	Yes	Yes
ETH Zurich	Yes	Yes	Yes
INSEAD	Yes	Yes	Yes
Oxford University	Yes	Yes	Yes
University of London	Yes	Yes	Yes
USA			
Columbia University	No	Yes	Yes
Harvard University	No	Yes	Yes
Massachusetts Institute of Technology (Sloan School of Management)	No	Yes	Yes
University of California at Berkeley	No	Yes	Yes
Wharton School- University of Pennsylvania	Yes	Yes	Yes

The above table shows that across regions, the Stand-Alone Sustainability Report and their University Websites are the main means of communication of universities in reporting their sustainability performance. For Europe, followed by Asia, the Annual Report is also another medium of making known to the public their sustainability performance. The University of Indonesia in Asia does not have any published Annual Reports. In the USA, it has also been noted that although all the five universities publish their Annual Reports, their main focus in on Financial Performance rather than their sustainability performance. It is only the Wharton School University of Pennsylvania that includes their sustainability performance as part of their Annual Report. These Sustainability Reports are all available and accessible to the public through their respective websites. Among the three regions, universities in Europe appear to be utilizing tri-focal medium (Annual Report, Stand-Alone Sustainability Report, and University Website) of communicating their sustainability performance. This reporting practice is a helpful benchmark for interested parties who are planning to design on how to communicate their Sustainability Report to the global public.

Frequency of Reporting

Table 2.

Frequency of Reporting per Region

Region	Frequency		
	Annual (Annual Report)	**Two Times a year/ Biennial (Stand-Alone Sustainability Report)**	**Year round (University Website)**
Asia			
Ateneo de Manila	Yes	No	Yes
Hongkong University of Science and Technology	Yes	No	Yes
National University of Singapore	Yes	Yes	Yes
University of Indonesia	No	No	Yes
University of Melbourne	Yes	No	Yes
Europe			
Cambridge University-Judge Business School	Yes	No	Yes
ETH Zurich	Yes	No	Yes
INSEAD	Yes	No	Yes
Oxford University	Yes	No	Yes
University of London	Yes	No	Yes
USA			
Columbia University	No	No	Yes
Harvard University	No	No	Yes
Massachusetts Institute of Technology (Sloan School of management)	No	No	Yes
University of California at Berkeley	No	No	Yes
Wharton School- University of Pennsylvania	Yes	No	Yes

The above table reveals that all the sampled universities in Asia, Europe, and USA publish their Stand-Alone Sustainability Reports annually, as well as publish parts of their sustainability performance in their Annual Reports at the end of every academic year. However, it is only the National University of Singapore (NUS) in Asia that publishes its Stand-Alone Sustainability Report twice a year (biennial). Again, across regions, these sustainability reports are made available in their universities' website (accessible on-line) throughout the year. This reporting practice of making the Sustainability Report accessible year-round makes it easy for any interested person or institution planning on how to go about disseminating their own Sustainability Report to a

larger public to frequently refer to these documents as models since there are always available online.

Framework of Analysis

Table 3.

Framework of Analysis per Region

Region	Framework				
	Global Reporting Initiatives (GRI)	ISO 14001 Environmental Management System (EMS)	UN Global Impact	Other standards and Registers*	No formal Framework (but follow certain principles and guidelines)
Asia					
Ateneo de Manila	Yes	No	No	No	No
Hongkong University of Science and Technology	No	No	No	No	Yes
National University of Singapore	No	No	No	No	Yes
University of Indonesia	No	Yes	No	No	Yes
University of Melbourne	Yes	No	Yes	Yes	No
Europe					
Cambridge University-Judge Business School	No	Yes	No	No	Yes
ETH Zurich	Yes	No	No	Yes	No
INSEAD	Yes	No	No	No	No
Oxford University	No	Yes	No	No	No
University of London	No	Yes	No	Yes	No
USA					
Columbia University	No	No	No	No	Yes
Harvard University	No	No	No	Yes	Yes
Massachusetts Institute of Technology (Sloan School of Management)	No	No	Yes	No	Yes
University of California at Berkeley	No	No	No	No	Yes
Wharton School-University of Pennsylvania	No	No	No	No	Yes

* Ceres & Tellis Institute Facility Report, World Business Council, Dow Jones Sustainability Index, Carbon Disclosure Project, Corporate Knights, People and Planet Green League, etc.)

The above table shows that across regions, there is no common framework used by the universities for sustainability reporting purposes. So far, the Global Reporting Initiatives (GRI) and its G4 Guidelines is the more commonly utilized framework by two universities in Asia (Ateneo de Manila University and University of Melbourne), two in Europe (INSEAD and ENT Zurich), but none in the USA. This finding is supported by the study of the National University of Singapore on sustainability reporting in ASEAN commissioned by the ASEAN CSR Network, wherein the GRI framework was used as primary conceptual framework and the standard adopted by sampled countries namely, Thailand, Malaysia, Vietnam, and Indonesia (Loh, et al, 2016). The popularity of the GRI as an example of available tools and guidelines consider the impacts − positive or negative − of the university's most relevant activities; these being education, research, community outreach, campus operation and management (Global Reporting Initiative, 2013a).

However, USA universities do not adopt a formal framework but instead follows a hybrid combination of set of principles, standards, and guidelines, such as the Corporate Knights and UN Global Impact. Among the five sampled USA universities, the Massachusetts Institute of Technology-Sloan and University of California at Berkeley are engaged in innovative research that addresses the negative impact on people, environment, and the economy. This confirms that the universities are key players in fostering the *knowledge triangle* because they are one of the most stable actors in society and they are the only actor in which the three activities take place (Holmberg, 2014). Furthermore, the worldwide challenges facing the global community cannot be effectively addressed devoid of the contribution of knowledge-based innovations drawing on all areas of education and research, together with humanities, social sciences, and the arts (Flodström, 2009). In Asia, this UN Global Impact framework is also used by the Melbourne University, as well as the ISO 14001 EMS by the University of Indonesia.

Moreover, the data also revealed that the Environmental Management System (EMS) certifiable to ISO 14001 standards is practiced by three universities (Cambridge, Oxford, and London) in Europe, and by one in Asia, specifically, the Melbourne University, which is strongly influenced by the British Educational System, such as Cambridge and Oxford Universities. London University uses a combination of ISO 14001 EMS, and another standard registered with the People and Planet Green League. The preference of UK-based universities for ISO 14001 EMS may be attributable to the origin of ISO standards from British standards, which evolved into an international series or family of standards in quality management; environmental management; and occupational, health and safety standards used primarily in various industries, and by both profit and not-for-profit organizations.

Data also revealed that INSEAD, which is based in France, does not adopt the ISO 14001 EMS standard, but instead uses the GRI and G4 Guidelines. ENT Zurich based in Switzerland uses both the GRI and another standard called International Sustainability Campus Network/GULF Framework.

The findings of this study, specifically on the framework of reporting used by the 15 selecting leading global universities in Asia, Europe, and the USA are coherently incorporated in the Institutional Sustainability Assessment (ISA) Framework formulated by the Commission on Higher Education which has five key result areas within which judgments are made about the performance of institutions: (1) Governance and Management (including Management of Resources); (2) Quality of Teaching and Learning (competency, programs, faculty); (3) Quality of Professional Exposure, Research, and Creative Work (including linkages);

(4) Support for Students (learning resources and support structures) ; and (5) Relations with the Community (extra-curricular linkages, service learning, and outreach) (CMO 46, Series 2012).This is the mandated framework which all HEIs in the Philippines must follow to achieve alignment with the Philippine Quality Framework (PQF) in order for the Philippines to become globally competitive.

Sustainability Priority Concerns and Level of Disclosures in the Report

Table 4.

Sustainability Priority Concerns and Level of Disclosures in the Report per Region

Priority Concerns	Asia	Europe	USA
Governance:	Ave: 3.00	Ave: 5.00	Ave. 4.5
Code of Corporate Governance	3	5	5
Code of Ethics /Policies	3	5	4
Environmental	Ave. 4.71	Ave. 5.00	Ave. 5.00
Energy	5	5	5
Water Management	5	5	5
Carbon Emission	5	5	5
Ecology and Waste Management	5	5	5
Green Spaces and Built Environment	4	5	5
Services Stewardship	5	5	5
Transportation and Travel	4	5	5
Economic	Ave. 2.50	Ave. 3.00	Ave. 2.50
Economic Value generation	3	5	5
Risk Management	2	1	0
Social	Ave. 2.40	Ave. 4.80	Ave. 4.00
Labor and Industrial Relations	2	5	5
Occupation	2	5	3
Training and Education	4	5	5
Community Involvement / Stakeholder Engagement	3	5	5
Philanthropy	1	0	2
AVERAGE	3.15 (Moderate)	4.45 (High)	4.00 (High)

Scale: 1.00-2.49 (Low); 2.5-3.49 (Moderate); 3.50-5.00 (High)

The above table indicates that across regions, European universities are all implementing governance practices, such as Code of Corporate Governance and Code of Ethics/Policies. This is followed by USA universities and Asian universities. Established universities in Europe such as Cambridge, Oxford, and leading schools in France (INSEAD) and Switzerland (ETH Zurich) have established governing boards and sustainability advisory councils. This is also the same pattern with regards to the USA universities such as Harvard University, MIT Sloan, and Columbia University.

Meanwhile, across regions, the environmental indicators (energy, water management, carbon emission, ecology and waste management, green spaces and built environment, services stewardship, transportation and travel) obtained the highest average frequency among the three sampled regions, with Europe and USA universities at the top, followed by Asia. It is the Hongkong University of Science and Technology and the University of Melbourne that were observed to have no specific report on green spaces and transportation and travel. This finding is consistent with our literature reviews, in particular, the study on sustainability disclosures in universities (Mendoza and Terpou, 2014), whereby Environmental Management and its impact is the essence of sustainability standards, protocols, guidelines, and development programs among universities .

These findings are the concretization of the main purpose of the Brundtland Report (1987), which was to look into the many concerns that had been raised in the past thirty years concerning human activity which has severe and negative impacts on the planet, and that patterns of growth and development would be unsustainable if they continued unchecked.

Furthermore, results showed that by region, social indicators (labor and industrial relations, occupation, training and education, and community involvement/stakeholder engagement) obtained both high priority ratings for selected European and USA universities; while Asia rated low. This can be explained by the explicit policies and practices by the sampled universities concerning the social impact of their practices and the prominence given to their sustainability reports.

The last indicator, economic (economic value generation and risk management) was rated moderate across the three regions, with Europe obtaining a rating of 3.00, followed by USA and Asia at 2.50 each. This outcome can be gleaned from the higher priority given to other indicators (environment, governance, and social impact), while the economic indicator is given the least. It is only the University of

Melbourne in Asia and the Cass Business School of London University in Europe which have reported initiatives related to risk management. Although some of these sampled universities in Asia gave quantitative reports to measure their sustainability performance, they are only dealing with metrics related to decrease in carbon footprint, greenhouse effect, solid waste management control, and recycling, which are quantified in terms of reductions but not translated in monetary value.

Overall, the level of sustainability disclosure in the reports is 3.88 (high) in all the four indicators. Comparing it by region, it is highest among European universities with a high average score of 4.45; followed by US universities with an average score of 4.00; while Asian universities garnered an average score of 3.15. Across all sustainability reporting practices, it is Europe that is a stand out.

Conclusion and Recommendations

The findings show that the selected global universities from the three regions − Asia, Europe, and the USA, have diversified practices in their sustainability reporting as gleaned from the various characteristics and priority concerns that were disclosed. Nonetheless, European universities are a stand out.

The results reveal that all the sampled universities in Asia, Europe, and the USA publish their Stand-Alone Sustainability Reports annually, as well as publish part of their sustainability performance in their Annual Reports at the end of every academic year. These reports are made available in their websites (accessible on-line) throughout the year.

In terms of reporting framework, the globally recognized GRI is predominantly used by universities in Asia and Europe, followed by the Environmental Management System certifiable under ISO 14001 standards. USA universities, however, use a hybrid combination of standards, some not formal, but utilize models, such as the UN Global Standards, Corporate Knights , ISC/Gulf Framework, and People, and Planet Green League.

Among the four priority concerns on sustainability reporting, the environmental indicator obtained the highest average frequency, followed by governance, social, and economic indicators disclosed by the universities in the three sampled regions, with Europe and USA universities leading.

Overall, the level of sustainability disclosure is high in all the four indicators. It is highest among European universities, followed by US universities, and then by Asian universities.

For practical application, we recommend that Philippine universities benchmark their sustainability reporting in the same manner by which leading global universities report them. Since we are a developing economy as a nation, priority should be given to sustainability practices related to energy, water management, carbon emission, ecology, waste management, green spaces, and built environment, as well as risk management. Our universities should establish sustainability governing boards and advisory councils to improve governance and management.

For further studies, we suggest the use of the qualitative case study approach in each of the leading universities in the three regions, utilizing the same indicators and measures we have used in this study to analyze in-depth the impact of these Sustainability Development Programs on the functions and operations of higher educational institutions, such as economic and social indicators. Quantitative empirical studies can also be made on the impact of these sustainability initiatives and practices on the long-term economic sustainability of universities, both for non-for-profit (state-owned), non-stock/Foundation, and for-profit organizations. This will encourage more organizations to develop/start-up sustainability programs, and/or enhance initiatives and practices for those already having their sustainability programs; and entice potential donors, patrons, and sponsors to support these organizations.

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