Assessing Thesustainability In Cihan University By Using Unit-Based Sustainability Assessment Tool

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Abstract: *Many universities have started to assess sustainability, and there are many tools have been developed to assess the sustainability. For universities at an early stage of sustainability implementation, choosing a tool that fits their specific context is an important step in their assessment process. Therefore, in this study, it is found Unit-based Sustainability Assessment Tool (USAT) to assess the sustainability in Cihan University. This study is aimed to assess the sustainability performance: Curriculum, teaching approach, research and scholarship activities, community service examination assessment of sustainability topics and staff expertise and willingness to participate in sustainability teaching and research in Cihan University through eight departments. The researchers findings were that Cihan university has a good level of integration of sustainability overall teaching department.*
Keywords: *Sustainability, USAT, Cihan Unvirsity, HEIs .*

I. Introduction

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Historically, the term "sustainable" arose among those with environmental concerns, and most of the literature and assessment instruments reflect this emphasis. However, it is increasingly recognized that sustainability cannot be achieved without addressing social justice issues. There can be no sustainable communities and institutions without social justice. So too is humane consideration toward the whole community of life an essential part of true sustainability.

II. Sustainability In Higher Education

In general, Higher Education Institutions (HEIs) have a "moral responsibility to increase the awareness, knowledge, skills, and values needed to create a just and sustainable future"[1] , especially because they prepare most of the professionals that will play a key role in the adaptation of our society to a sustainable model of living[1].Therefore, if universities promote sustainability effectively, it will be getting sustainable world[2].

When considering how universities can influence future professionals is important to consider that students learn from everything around them, including curricula, research, operations and outreach activities, all of which establish a complex network of experiences that define the profile of graduates[1]. Because of this, HEIs should implement sustainable processes covering its functions and activities[3].

It is important to identify the tool and standards to assess the sustainability as a vision of a university in higher education[4]. In 2012, (Kamal andAsmuss) adopt five areas campus life to address sustainability in the University of Sakatchewan[5] as shown in Figure 1:
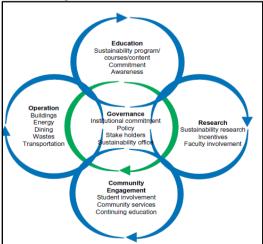

Figure1: Five areas campus life to address sustainability in the University of Sakatchewan.

Furthermore, sustainability education often engages students in practical activities such as campus greening initiatives; sustainable technology competitions; field visits to learn about sustainable practices; expanded environmental studies courses; and explorations of how society, nature and economics interact through global studies[6], [7], [8], [9]. So, it is important to provide education sustainability in higher education.

Several key competencies for sustainability education that have consistently emerged from the educational literature over the past two decades were recently identified and synthesized by (Wiek et al. , 2011)[10].

III. Comparing Assessment Tools

There are many deferent tools to assess the sustainability in higher education. As indicated by Lozano there are three main approaches for assessing and reporting sustainability in organizations: accounts, narrative assessments and indicator-based. Each of them has strengths and weaknesses, but "in general, indicator-based assessments have an overall higher performance and are more easily measurable and comparable than the other two approaches because they tend to be more objective"[11].

The tools were analyzed considering the attributes proposed by (Shriberg , 2002), and were compared as to their complexity, weighing method, major weaknesses and strengths, and potential field or scope of application. According to (Shriberg , 2002) the "ideal" cross-institutional sustainability assessment tools have attributes[4] as shown in table1.

Table1: the attributes of sustainability assessment tools

Attributes	Explanation
They identify important issues	They address contextually appropriate issues related to campus sustainability
They are calculable and comparable	They must be based on measurement methods that are "flexible enough to capture organizational complexities and differences", but that are also specific and comparable.
They measure processes and motivations	Considering that sustainability is a process of continual improvement.
They stress comprehensibility	They must be comprehensive to a broad audience. It is important that methods and results are presented in a clear manner, enabling both the verification and effective communication of results.

In this study, there are tools will be compared according to (Shriberg , 2002), (Lozano, 2006) and (Gomez et al , 2015) in Table2. Then, one of these tools will choose to apply in Cihan University.

Tools	Comparison
TheSustainability Assessment Questionnaire (SAQ)	The SAQ offers its users a comprehensive definition of sustainability in higher education as well as providing a snapshot of institutions on the path to sustainability. It covers 7 critical dimensions of higher education[12].
The Auditing Instrument for Sustainability in Higher Education (AISHE)	AISHE is also a tool that can foster participation in the auditing process. There are 20 criteria within five fields of attention[13] .
Graphical Assessment of Sustainability in Universities (GASU)	The GASU was designed to facilitate the analysis, longitudinal comparison and benchmarking of universities'sustainability efforts and achievement. It makes use of indicators grouped under 4 dimensions[11] .
Unit-based Sustainability Assessment Tool (USAT)	The USAT is designed to established to what level universities have integrated sustainability concerns in teaching, research and community service[4].

Table2 illustrates four deferent tools designing to assess sustainability in higher education specially, universities. These tools have many attributions shown in Table1 therefore in this study the authors choose the USAT to measure the sustainability in Cihan University.

IV. Unit-Based Sustainability Assessment Tool (Usat)

According to (Togo and Lotz-Sisitka, 2009), The USAT is designed to established to what level universities have integrated sustainability concerns in teaching, research and community service, but also considers organizational level and management unit contributions, student initiatives and policy statements (similar to SAQ, AISHE and GASU). Like these other three tools, it is an indicator-based tool. It is divided into four parts for ease of administration[14]:

First Part: pays particular attention to the core mission of universities and covers curriculum, teaching approach, research, community service activities, examinations/ assessment and staff expertise. It is targeted at heads of teaching departments (HODs) to give their impression on the indicators.
Second Part: deals with other university operations and the management of the university, including the estates division and management divisions such as human resources, planning and research.
Third Part: deals with student activities which may be linked to, or independent of the other parts.
Final Part: focuses on policy including institutional written statements.

Indicators in First Part of USAT (Teaching Part)
The first part of the USAT is for use in academicdepartments, or research and teaching units. It makes use oftwenty eight indicators grouped under six clusters[14]. Therefore, the study focuses on teaching departments. These Clusters are:
1. Curriculum
2. Teaching approach
3. Research/ and scholarship activities
4. Community service
5. Examination / assessment of sustainability topics
6. Staff expertise and willingness to participate in sustainability teaching and research.

Indicators of Second Part of USAT (Operation Part)
The second part is dedicated to other university operations and management practices. The design of the USAT Part B was modelled on the operations section of the SAQ[12].It covers university operations that fall outside of teaching, research and community service. These include waste management practices, air pollution, energy, water conservation, landscaping, pest management, transportation programs and purchasing. The operations section also requires the assessor to indicate prime project areas and to show where he/she does not have adequate information regarding the practice[14] .

Indicators of third Part of USAT (Student Involvement)
The indicators in the USAT Part C include assessment of student involvement in voluntary activities related to sustainability, student orientation programs and career counseling, student politics and governance for sustainability, collaboration of students and management on sustainability issues, and student involvement in sustainability practices in residences (amongst others). The USAT indicators therefore cover voluntary activities by students, as well as student support, student organizations and governance systems[14] .

Indicators of Fourth Part of USAT (Policy and written statements)
This part of the USAT is designed to assess sustainable development related policy at various levels, and other university written statements. It also partly draws from the SAQ[12] . It is targeted at university managers. At national level, the part focuses on integration of sustainability in higher education policy and the degree to which such higher education policy is shaped by national and global sustainability issues and policy.

Why Using USAT to assess in this study?
There are several reasons to use this tool to measure the sustainability in universities particularly, in this study at Cihan University. First of all, USAT is an initiative supported by the United Nations Environment Program (UNEP) and Mainstreaming Environment and Sustainability into African Universities (MESA). It is also, used for the development and use of educational tools that aim towards Sustainability Development in universities. This tool can be used (independently) by different units/faculties at a given university. Finally, it provides the option to integrate or compare all the assessed units, thus giving a total score for the institution[3].

V.   Framework Of Sustainability Adoption In Cihan

Because the study aims to assess the sustainability over the departments in Cihan University, the authors apply the USAT to assess the sustainability through focusing on teaching part. The study involves eight departments: Finance, Business, Health Administration, Accounting, Law, Media, Biology,and Engineering. Therefore, the framework for the assessment of this study will be shown in Figure2.
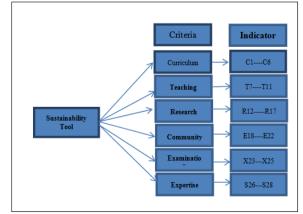

Figure2: Sustainability Assessment Tool Adopted in Cihan University

As shown in the figure above, for each cratian there are many inidators. Therefore, the authors gave each indicator sample such C1 to make it easy.

VI. Data Analysis

The researchers distributed 75 questionnaires with 28 questions to 75 employees in Cihan University. They use statistical analysis to measure the sustainability in each department. In Figure3, It shows both the total performance of each of the departments and the scores for each of the indicators per department. In Figure4, it easy to see the average of each department and the total average of the university.
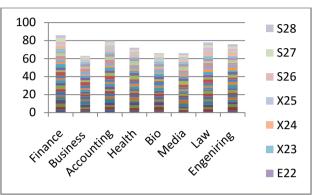

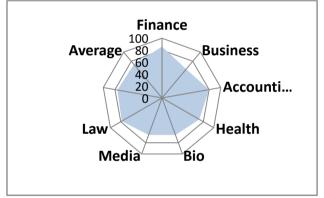**Figure3:** the overall departmental performance

Figure4: Average sustainability performance per department (%).

Figure 3 and 4 allow for a quick identification of departments with high integration and those with low integration of sustainability. In both graphs, it is easy to recognise that the Finance Department has the highest integration of sustainability in its operations while Business has the lowest. In universities moving towards sustainability, the USAT is therefore providing a quick way of determining the status quo in integration of sustainability, which is the starting point in implementing or promoting sustainability.

VII. Conclusion

In this paper, the results of USAT Tool Assessment of the questionnaires indicate the following:
- Finance department has 86%, that is mean it has the highest integration of sustainability in its operations.
- Business Administration has 63%, that's mean it is typical but not good enough in the sustainability because it has the lowest integration of sustainability.
- Other departments has a good percentage of integration of sustainability in their teaching part
- From this paper it can be seen that the Data from assessments using the USAT are easy to represent, understand and compare, and can easily be discussed at for example staff meetings.
- The other advantage of USAT is that it allows for assessment of the institution in constituent parts and analyses these separately before building up the whole picture again, thus allowing for a capturing of the specific contribution and diversity of individual departments.
- Finally, Cihan University has a good way to get high integration of sustainability because it obtains overall 73%.

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