

Role of Universities in Promoting Sustainable Quality Education: A Review of Implementation of SDG 4

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Abstract

Universities have the sole responsibility of achieving the International Sustainable Development Goals (SDGs) as envisaged in the vision 2030 especially since their role is three-fold including: teaching, research and community service. The role of universities in human capital development, research and technological innovation cannot be underscored. All over the world, investment in higher education is a critical component for national development realization. Nations today depend increasingly on knowledge, research-based evidence, technological innovations and up-to-the-minute skills which are the byproducts of higher education institutions. Machumu and Kisanga (2014) asserted that one of the main challenges facing universities in their effort to improve quality of education involves procedures for developing policies to establish appropriate Quality Assurance (QA) systems, practices with clients' commitment and practices for achieving intended institutions, mission, vision and goals. It is important despite the challenges that universities continue to engage in quality knowledge production, consumption and dissemination. Quality Management theory which was first advanced by Deming (1950) and later improved by Juran (1951) and Crosby (1979) informed the study. This paper seeks to establish areas in which universities could focus on to enhance sustainable quality education in tandem with ever changing world needs. The findings may help universities evaluate their current roles in promoting sustainable quality education, identify gaps in their operations and take actions accordingly.

Key Words: Universities, Quality Education, Quality Management, Sustainable Development Goals, Vision 2030

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Introduction and Background

The 17 SDG's are the blue print to achieve a better and more sustainable future for all (Diamadopoloulos, 2023). The goals address global challenges which include poverty, inequality, climate change, environmental degradation, peace and justice. According to UNESCO (2022) universities can actively contribute to the achievement of the SDGs through teaching, research, community engagement, non-academic services and management practices. By definition, universities fully match the targets and priorities set in the 4th SDG which calls for inclusive, equitable and quality education. Through innovation in teaching and research, through active participation of all academic stakeholders, universities should encompass the vision of the SDGs and respond to the problems set out by the 2030 Agenda (Diamadopoloulos, 2023). According to Eliasson (2019) universities can integrate the SDGs into higher learning through their teaching role, collaborative role, evidence-based knowledge role, a measuring and evaluating role and an advocating role to create sustainable societies. Shava, Nkengebeza, Phuthi, Mpuang and Alava (2021) further assert that universities must adopt a pragmatic educational philosophy empowered by technology and the needs of society to ensure the achievement of SDG 4 on quality in higher education. To respond to this challenge, universities need radical institutional innovation that involves thinking, internal organizational structures and operation systems as well as interaction with other social players beyond academia.

Mohanty and Dash (2018) contended that recent Education for Sustainable Development (ESD) literature on SDGs for 2030 advocate for whole institutional approach to bring sustainable change in the institutions' vision, activities and structures, professional knowledge creation and pedagogical practices. The primary purpose of adopting ESD in institutions for higher learning is to build institutional culture that would improve learning and help students become responsible individuals by fostering sustainability for the sake of conservation of natural resources and promote equality, sustainable consumption, life-style and practices to protect the environment and make the world a place of sustainable habitat. This calls for need to update the curriculum, pedagogy and educational resources to address 21st century challenges. It is against the aforementioned background that the current study sought to highlight the role and successful techniques African universities could adopt to promote sustainable quality education.

Statement of the Problem

New challenges of learning are emerging and 21st century higher education should seek to address these challenges and contribute to sustainable quality education. Shava et al. (2021) argued that there is need to update university curriculum, pedagogy and educational resources to address these challenges. This was earlier supported by Afolabi and Idowa (2020) who argued that if African universities must make significant progress in quality management and attain higher quality in their higher education, there is the need to overhaul the entire universities' management systems in Africa. Nyerere, Mfune, Fuh, Sulemana, Mutisya, Yiran, Fadairo, Ameyaw and Odingo (2017) also asserted that even though important strides have been made in integrating Sustainable Development (SD) in university programs, most African universities still lag behind their counterparts elsewhere across the globe in their contribution to cutting edge research and technology. Nyerere et al. (2017) contend that most African universities have been left as passive recipients of technological innovation. It is against this backdrop that the current study sought to establish areas where African universities need to look into in order to offer quality sustainable education and to establish how frequent the universities should engage in curriculum review so that the courses offered meet the ever-changing market needs globally.

Theoretical Framework

The study was informed by Quality Management Theory which was first advanced by William Edwards Deming (1950) and later improved by Joseph Moses Juran (1951) and Philip Bayard Crosby (1980). According to Misztal (2013), quality management principles which are known today were worked out by many theorists and practitioners, the most influential being that which was advanced by W. E. Deming (1950) and his 14 principles, J. M. Juran (1951) and his 10 principles, P. B. Crosby (1979) and his principle 'zero defects' and his 4 assumptions. There are 7 Quality Management Principles upon which the ISO 9001 for Quality Management Systems (QMS) are based. Kadam (2020) asserts that the new ISO 9001:2015 QMS are based on these 7 quality management principles. The first principle is focus on customers and interested parties. In order to enhance corporate performance and achieve sustained success, organizations must focus on both their customers and their interested parties. Organizations can establish this focus by trying to understand the current and future requirements and expectations of both their customers and their interested parties and by constantly trying to meet these requirements and exceed expectations.

The second principle according to Kadam (2020) is providing leadership for the organization. In order to enhance corporate performance and achieve sustained success, organizations must ensure that suitable leadership is provided at all levels. Suitable leadership is provided whenever leaders at all levels establish unity of purpose and whenever they create an environment that encourages people to pursue common direction and achieve a common set of objectives. By establishing a common purpose, leaders can ensure that all strategies, policies, processes and resources are aligned and being used to pursue a common direction and to achieve a common set of objectives. The third principle is to engage and involve people. Kadam (2020) asserts that in order to enhance corporate performance and achieve sustained success organizations must be able to create and deliver value. In order to do so they must have people who are competent, they must enhance their knowledge and skills and they must manage them

effectively. Organizations should empower people, encourage their involvement and engagement at all levels and recognize their achievement.

The fourth principle is to use a process approach. In order to enhance corporate performance and achieve sustained success, organizations must use a process approach to manage their activities. The process approach is a management strategy. When managers use this approach, it means that they manage and control processes, the interactions between these processes and inputs and outputs that tie these processes together. It also means that they manage these interactions as a system. When this approach is applied to quality management, it means that they manage their processes and their process interactions as a coherent quality management system. The fifth principle is to encourage improvement. In order to enhance corporate performance and achieve sustained success, organizations must encourage and support improvement. If they wish to maintain current levels of performance, respond to changing conditions and if they wish to identify, create and exploit new opportunities, organizations must establish and sustain an ongoing focus on improvement.

The sixth principle is to use evidence to make decisions. In order to enhance corporate performance and achieve sustained success, organizations must establish an evidence-based decision-making process. Decision making is evidence-based whenever multiple types of input are gathered from multi sources, whenever facts are identified, whenever data is analyzed objectively, whenever cause and effect relationships are examined, whenever potential unintended consequences are considered and whenever all of this is used to make corporate decisions. The seventh principle is managing corporate relationships. In order to enhance corporate performance and achieve sustained success, organizations must manage their relationship with suppliers, partners and other interested parties. Relationships must be carefully managed because suppliers, partners and other interested parties can influence corporate performance and undermine corporate success.

Application of Quality Management Theory to Education

Many higher-education institutions according to Girmanova, Solc, Blasko and Petrik (2022), recognize total quality management as an effective management philosophy. Originally, the concept was developed for manufacturing organizations but later it gained popularity in other service institutions including banks, insurance, nonprofit organizations and health care among others. In order to make TQM successful, it is essential to create a quality culture by shifting from traditional management culture to total quality culture. TQM requires a radical cultural change from traditional management to a continuous improvement management style in an organization. This is supported by Afolabi and Idowu (2020), who argued that quality management is one very potent and veritable tool with which higher education agenda in Africa can be achieved. The seven quality management principles guided the study in establishing the key areas that universities needed to look into in order to offer quality sustainable. The sixth principle of using evidence to make decisions did guide the study in addressing the question on how frequent universities should engage in curriculum review so that the courses offered can meet the ever-changing market needs.

Key areas for universities to enhance Quality Education

There are studies that point to key areas universities need to look into in order to offer quality education. A study by Ashida (2023) contends that there has been need to change the nature of higher education to meet the increasing demand brought about by the rapid development of globalization. To solve this global challenge, academic expertise and cooperation among parties across various fields are essential. Afolabi and Idowo (2020) were in agreement with Ashida (2023) when they contended that one of the demands of globalization is the compelling need for improved quality of higher education provided in universities. This is because universities have the ability to take the lead in addressing local, national and international SDGs through cross-sectional dialogues and partnerships as well as play a key role in advocating the importance of SDGs and providing educational programs on SDGs in sectors other than education. Nyerere et al. (2017) were in agreement with Ashida (2023) and Afolabi and Idowo (2020) when they posited that universities are seen as engines of innovation which in turn spur industrial and economic development.

While literature according Nyerere et al. (2017) sees the link between education and SD as explicit, it is essential to see how universities have embraced the notion of SD in their curricular, research and other programs. Afolabi and Idowo (2020) highlighted key areas that universities need to look into in order to offer quality sustainable education. These include among others protocol quality management mechanisms, enhancement of academic programs, monitoring of student assessments, monitoring the quality of academic staff and evaluation of student support structures. The protocol QM mechanism consists of three levels of analysis. The first level is that higher institutions must regularly receive feedback from stakeholders who from this mechanism consists of students, employers and staff members. The second level of analysis suggests that QM must be built in the traditional governance tools which the higher institutions of learning are already familiar with. Some suggestions include organizational improvement plan which should be partner focused, basic management and governance processes that should be stakeholder focused and leadership should continuously measure and estimate the organizational and faculty work. The third level suggests that the most important processes in QM must be controlled in each area of organizational operation.

The other key area universities need to look into in order to offer quality education are the academic programs. To achieve this, the most widely used tool according to Martin and Parikh (2017) is the Student Course Assessment. This allows students to evaluate some quality dimensions and specifications of teaching and learning with respect to each course undertaken. Program Evaluation according to Massy (2003) can also be used to assess the adequacy of learning objectives and whether the teaching and learning methods enable students to achieve their academic goals. Another key area is monitoring of student assessments. This forms an integral part of QM in universities. It has to do with the assessment of students' academic performance from time to time. The use of external examiners to review, criticize the assessment, grading and examination process of universities is a major tool. This can also be done at internal level using tools such as Departmental or Faculty Academic Committees to assess and grade students.

Monitoring the quality of academic staff is also a very crucial aspect of QM in universities. This ensures that academic staff are regularly assessed to ensure that they meet the desired quality and are producing results. This is mostly done on the basis of research

performance and productivity. Another potent tool under this mechanism is mentoring arrangements where junior and newly recruited staff are attached to senior staff, usually professors, to provide mentorship to them and train them on the job. Other tools in this mechanism are the self-assessment students' evaluation of teachers, internal audits and annual development discussions. The other key area that universities need to look into in order to offer quality sustainable education according to Afolabi and Idowu (2020) is the evaluation of student support structure. Student support services are important for QM in universities. Such services range from academic or career advice, admissions and registration, information and communication technology facilities, documentary resources and teaching laboratories among others. The focus is on support processes for students and their outcomes. The aforementioned studies created theoretical gaps that the current study intended to fill by adopting quality management theory.

Curriculum Review in Universities

Reviewed literature indicates that there is a critical need for universities to update and upgrade their curricular to ensure that students graduate with relevant skills and competencies for job fit. According to Ngala (2018), quality educational programs can only be achieved by or orienting university curricular in such a way that the industry demand are adequately fused in the developed and reviewed content. He further asserted that “the curriculum must also be continually reviewed after every complete cycle in order to capture the emerging issues in the dynamic industry environment”. He contended that the curriculum must be consistent with institutions' mission and clearly defined outcomes intended to produce relevant graduates in the ever-changing technological world. It is important to note that clear policies need to be formulated and implemented to guide curriculum development and review. The entire process needs to be highly inclusive in order to take care of all the needs of stakeholders involved at every stage.

Shava et al. (2021) also argued that higher education institutions should update their curricular, pedagogy and more important their educational resources including ICT infrastructure to address the 21st Century context of teaching and learning. They contended that there is need to address issues relating to how learning takes place, what knowledge and information students acquire, what skills are needed to succeed and how to expand gains for progressive and sustainable learning outcomes among learners. This is supported by World Bank report of (2019) which pointed out that the focus of curricular and pedagogical reforms should be on modernizing program content and making delivery more effective. The establishment of well-resourced teaching and learning centers in all higher education institutions should become a priority in support of pedagogical innovations that should facilitate active learning such as design-based or problem-based learning, gaming, simulations, roleplaying and peer to peer teaching.

The study by Shava et al. (2021) took a qualitative research approach. Data were collected using unstructured interview. The bulk of data collection was done through telephone conversations and internet. The study used social realist theory of structure, culture and agency to analyze the challenges of achieving SDGs specifically focusing on quality in higher education. Shava et al. (2021) created a theoretical gap that the current study intended to fill by using QM theory in education. A study by Ngala (2018) adopted a descriptive cross-sectional survey design established that positive and significant correlation existed between curriculum

orientation and university performance. The goal of regular curriculum review according to Ngala (2018) is to ensure that programs continue to offer relevant and emerging issues in the industry and to offer students learning experiences that are inspiring, intellectually challenging and transformational. The study by Ngala created a theoretical gap that the current study intended to fill by using QM theory.

Methodology

The paper was a desk review of published works from ERIC, JSTOR, ESBCO, UNESCO data bases and existing internet-based information. The search for accurate data pertinent to the topic both published and unpublished data were systematically conducted. The paper examined literature in the following areas: the role of universities in offering quality education, UNESCO higher education global data report working document, improving higher education performance, higher education curriculum orientation, African universities quality management, principles and contributions of total quality management among others aspects of university quality education. It finally discussed findings and subsequently offered conclusions and way forward.

Findings and Discussions

Quality in higher education according to UNESCO (2022) is a multi-dimensional, multi-level and dynamic concept that relates to the contextual settings of an educational model, to the institutional mission and objectives as well as to specific standards within a given system, institution, program or discipline. UNESCO (2022) further asserts that learning, as a lifelong experience requires quality education provision alongside flexible learning pathways. In terms of formal learning in higher education, increased participation, the diversification of learners, the diversification of provision, the availability of educational technologies and the dynamic labor market requiring rapidly changing skillsets, all permit and promote the development of flexible learning pathways.

A policy report by World Bank (2019) was in agreement with UNESCO (2022) when it stated that improving the quality and relevance of higher education institutions required a combination of interventions such as better preparation of incoming students, enhancing qualification of academics, innovative curricula and pedagogical practices, closer links to industry, increased internationalization and strengthened research capacity. This was further supported by Shava et al. (2021) who confirmed that SDG 4 was difficult to achieve due to lack of attention paid to participatory and democratic decision-making processes outside academics which result in an inadequate framework for involving societal processes. The barriers for achieving SDG 4 were summarized as lack of institutional ESD policy or strategy on ESD, lack of institutionally coordinated effort that incorporated all faculties in bid to ensure sustainability, ESD constrained by institutional hierarchical approaches to curriculum and course development. They also asserted that to develop a holistic and consistent sustainable-oriented higher education, the greening of higher education is needed. There is need for more direct influence and participation by all involved in higher education teaching and learning and ESD should be undertaken over a relatively wide area of university teaching.

According to Ngala (2018), frequency of curriculum review, stakeholders' engagement and professional bodies' engagement have been established as significant predictors of university performance. The University authorities must therefore strategically link these indicators to the

industry needs by involving stakeholders and professional bodies in decision making process in order to realize superior performance. Organizational policies need to take into consideration the needs and demands of the industry that it serves rather than focus on performance in isolation. He also argued that it is important for universities to acknowledge that curriculum development and review policies, industrial attachment policies and all other linkage strategies and procedures must provide space for contributions from stakeholders. This creates a need for university authorities to develop policies that promote collaborative curricula and adopt robust policy framework to monitor industry signals and determine appropriate value weighting on some academic programs so as to meet the economic sector shortages.

Conclusion and Recommendations

The overarching aim of SDG4 is to create a world where all students regardless of background and location can benefit from quality education and learn values, behavior and lifestyles associated with creating a sustainable future and promoting social transformation. Many of the structural, agential and cultural challenges in higher education are similar across the world but differences only exist in the institutional frameworks which emerge due to diverse transformation processes. The lack of trans-disciplinary study programs or opportunities for quality teaching and learning and little existence of networking, collaboration, exchange programs, academic visits and University outreach and dialogue with social actors or potential stakeholders and other traditional prejudices have acted as major obstacles to pressing and transitional trends towards achieving SDG4.

There is need for policy framework and strategy of ESD in Universities that should address ESD issues relating to education content, learning processes and incorporating into University education principles relating to quality teaching and learning. SDG4 achievement requires capacities among policy makers, curriculum developers, educational institutional leadership, assessment experts and most specifically, academics to take a leading role. Many countries not only in Africa but the entire world point to limited funding and resources as major barriers to achieving SDG4 and for capacity building. This being the case, support from international donors, NGOs and the private sector is needed to successfully achieve SDG4. University Education world over is the major contribution to development. A long-term holistic partnership with developed countries will bring about positive results with quality and sustainability which will have a reasonable impact on the transformation agenda of the 21st Century.

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