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Status of Sustainability Management Education in African MBA Programmes: A Web-based Research Approach

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Abstract

Emerging evidence suggests that business schools in Africa are lagging behind in promoting sustainability education. Grand challenges that point to a limited focus on transformative sustainability education such as environmental pollution, conflicts, inequalities and unemployment still persist in African economies, with the profit motive remaining central to businesses' operating philosophy. Informed by the clarion call for business schools to be key drivers of sustainability education, this study reviews the African master of business administration (MBA) curricula with the objective of assessing the status of sustainability management education. The content of the MBA curricula of 42 African business schools accredited with the Association of African Business Schools was analysed using a web-based research approach. The findings indicate that the concept of sustainability has not been sufficiently embedded into the African MBA curricula. The values and mission statements of the majority of business schools were found not to be aligned with the principles of sustainability education. It was also found that shareholder value oriented modules constitute the core curriculum of the majority of MBA programmes reviewed. An incremental elective approach was found to be the most dominant strategy used by African business schools to incorporate sustainability education in the MBA curricula. An integrative approach of embedding sustainability education focusing on re-orientation of the business schools' values, mission, curriculum, systems, operations and governance is recommended. The increased use of experiential learning is also recommended as an effective teaching pedagogy for equipping MBA students with practical aspects of sustainability education.

Introduction

The promotion of sustainability is regarded as a strategic imperative to address global grand challenges such as environmental pollution, loss of biodiversity, climate change, poverty, inequality and conflict (United Nations, 2019). The concept of sustainability was popularised by the Brundtland Report of 1987 which aptly defined it as development that addresses current human needs without compromising the ability of future generations to meet their own needs (United Nations General Assembly, 1987). The mainstream adoption and implementation of sustainability has been promoted through the United Nations' sustainable development goals

(SDGs) (United Nations, 2015). Despite this, more than a decade following the adoption of SDGs, there is a growing concern that the intended objectives are far from being achieved (Honig & Hjortso, 2018; Royo, Diep, Mulligan, Mukanga & Parikh 2022; Schlosberg, 2016). On a pessimistic note, an earlier study by Schlosberg (2016) argues that, in fact, we have slipped into the anthropocene which demands the development of effective sustainability strategies to manage human needs, habitats and ecosystems.

Although national governments have committed and are expending resources towards the realisation of SDGs, the majority of economies in the African continent are still grappling with a host of grand challenges such as pandemics, climate change, poverty, conflict and social injustice (Hofstetter, McGahan, Silverman & Zoogah 2022; Honig & Hjortso, 2018). The education of key stakeholders such as businesses, consumers and communities has been identified as a critical strategy to enhance mainstream adoption and practise of sustainability (Hunter et al., 2017; Greenland, Saleem, Misra & Mason 2022). The role of education for sustainability also gains support from the 2020 UNESCO Education for sustainable development. Sustainability education is particularly important for individuals to understand the earth limits, that is, the safe operating space for humanity to maintain an intricate balance with the natural environment (Huckle & Wals, 2015). Sustainability education is required to capacitate individuals to understand planetary boundaries that should not be transgressed and the importance of ground breaking environmental innovations (Schlosberg, 2016; Srivastava et al., 2019). Sustainability education has also the added role of positioning the concept of sustainability in such a manner that it is not perceived as an antithesis to economic growth (Schlosberg, 2016).

To promote sustainability education, higher education institutions (HEIs) are expected to assume more responsibility in imparting environmental knowledge and values, nurturing innovative solutions and providing input in policy development in manner that contributes to a more sustainable future (Baker-Shelly, van Zeijl-Rozema & Martens 2017; Greenland et al., 2022). HEIs are regarded as microcosms of the society (Purcell et al., 2019), as such, how they manage their water and energy consumption, carbon footprint and waste provides a potential learning model for communities. Educational scholars have also underscored the importance of capacitating future leaders to cope with wicked problems that are characterised with uncertainty, ambiguity and complexity (Figueiró & Raufflet, 2015). It is within this context that this study focuses on the role of business schools because they are responsible for educating current and future leaders to manage sustainability issues in businesses, civic society and national governments (Baker-Shelly et al., 2017; Shantz, Sayer, Byrne & Dempsey-Brench 2023; Yadav & Prakash, 2022). In particular, through their flagship MBA programmes, business schools are expected to be conduits for the development of sustainable leadership (Arnold, 2018; Mohr & Purcell, 2020). Sustainable leadership refers to a management philosophy that focuses on the development of future oriented leaders who value the interconnectedness of economic prosperity, environmental sustainability and societal well-being (Mohr & Purcell, 2020).

Although several business schools have adopted the Principles of Management Education as a strategy of integrating sustainability in their operations, there is a growing perception that actual practice is still lagging behind (Maloni et al., 2021; Macheridis & Paulsson, 2021; Kohl et al. 2022). According to Kohl et al. (2022), the voice of business schools is still lacking in the development of national and international sustainability conventions. Similarly, Macheridis and Paulsson (2021) note the dearth of studies on how HEI(s) can integrate sustainability in the mainstream curriculum. Moreover, there is also a perception that sustainability education in its current form is fragmented and lacks coordination (Lozano et al., 2015; Shawe, Horan, Moles & O'Regan 2019). These concerns have resulted in calls for business schools to optimise their business and societal role to promote effective sustainable management education that enhances a more sustainable society (Bell et al., 2019; Nguyen, Lobo & Greenland 2017).

The study context

The African continent has recorded a remarkable growth in MBA programmes. As of 2022, 51 business schools were accredited with the Association of African Business Schools. However, it is perceived that the growth in the MBA programmes in Africa has not been commensurate with the improvement in the implementation of sustainability practices (Baets, 2011; Arnold, 2018). African business schools, in particular the MBA curricula have been criticised for developing business leaders who are ill-prepared to address contemporary challenges (Arnold, 2018; Hofstetter et al., 2022; Honig & Hjortso, 2018). Despite being endowed with good climate conditions and mineral resources, Yenkey and Hill (2022) note that, in the past three decades, African countries' macro-level sustainability indicators have been declining. The majority of African countries failed to achieve Millennium Development Goals and are also lagging behind in the implementation of SDGs (Royo et al., 2022). There are also glaring gaps in ethical leadership with several African countries scoring low on the Corruption Perception Index (Mishra & Maiko, 2017; Transparency International, 2018). The African continent has also witnessed corporate scandals such as the Enron and Steinhoff in South Africa (Rossouw & Styan, 2018), among others. Another worrying development is the growth in large scale deforestation which is wiping out Africa's once pristine forests (World Wildlife Fund, 2016). Moreover, the challenges facing the African continent such as corruption, conflict, disease among others are attributed to lack of ethical and sustainability oriented leadership (Mishra & Maiko, 2017). If concerted efforts are not taken, challenges are expected to worsen due to population growth which will spur significant increase in pollution, energy and water consumption, poverty, unemployment and inequalities (Greenland et al., 2019, 2020).

The challenges confronting the African economies have resulted in calls for a fundamental revision of management education, especially the MBA programme (Baets, 2011; Arnold, 2018). In particular, the capacity of the MBA programme to nurture ethical leadership has been questioned (Mishra & Maiko, 2017). On their part, some of the business schools have revised the MBA curriculum by incorporating sustainability and responsible management principles as a way of responding to the calls for the retooling of the MBA programme (Arnold, 2018). Despite this, critics contend that the African MBA curricula remain skewed towards economic and analytic business models with little commitment to embrace core principles of sustainability management education (Baets, 2011). It is against this background that this study conducts a web-based content analysis of the African MBA programmes with the objective of assessing its capacity to nurture sustainable development oriented leaders.

Research objectives

This study assesses the potential of the African MBA programme to impart competencies in sustainable business practices. To this end, Boarin et al. (2020) as well as Wersun et al. (2020) underscore the importance of evaluating the MBA curriculum as a necessary precondition for promoting sustainable education. An assessment of the status of sustainability management education in the African MBA curricula has been lacking. Notable studies on management education mainly focused on research in African business schools (Sigue, 2012), management scholarship (Beugre, 2015) and management education challenges (Honig & Hjortso, 2018). Thus, this study seeks to address this research gap by assessing the status of sustainability education with a focus on the MBA curricula of business schools accredited to the Association of African Business schools. This study aims to provide insights to business schools intending to integrate sustainability practices in the MBA curriculum and propose future directions for sustainability in management education.

The following research question is central to this study: Is the African MBA curricula oriented towards sustainability management education? The specific objectives this study seeks to address

are as follows: 1). To assess whether the mission statements and values of African MBA programmes are aligned to sustainability education, 2). To assess whether the African MBA curricula promote sustainability education, and 3). To assess whether the teaching and learning pedagogy of African MBA programmes supports sustainable education. By attempting, to address these objectives, this study seeks to contribute towards efforts directed at re-orienting the MBA Programme towards sustainable development. The remaining sections of this study are structured as follows: Section 2 reviews literature on sustainable leadership; Section 4 discuss the research methodology is discussed. The last sections focus on discussion of results, implications, limitations and conclusion.

Literature review

Call for sustainability management oriented MBA curriculum

The most pressing and urgent challenge confronting humanity is how to preserve ecosystems and create a sustainable future (Greenland et al., 2022; Schlosberg, 2016). This challenge is exacerbated by individuals' apathetic disposition towards the concept of sustainability (Sengupta, Blessinger & Yamin 2020). In most instances, management education students who are identified as future business leaders lack a detailed understanding of the importance of sustainability in decision making (Honig & Hjortso, 2018). This realisation has resulted in questions of what is taught, how it is taught and for what reasons in management education (Beugré, 2015; Honig & Hjortso, 2018). Sustainability management education is becoming a crucial tool for developing business leaders who understand the importance of enhancing economic prosperity whilst being attentive to environmental and societal well-being (Soliman & Al-Bahi, 2018). The concept of sustainability education owes its roots to the Brundtland report of 1987 which challenged educational systems to contribute to develop a more sustainable society (Sengupta et al., 2020).

The curriculum is identified as a critical tool for fostering sustainability education in learning institutions (Mohr & Purcell, 2020; Sengupta et al., 2020). Despite this, there is a generation perception in literature that management education curricula remain rooted in competency based models that have been blamed for contributing to African challenges (Honig & Hjortso, 2018). The teaching and learning pedagogies are also perceived to be principally focused on developing economic and analytic skills with less priority being given to sustainable education (Ramboarisata & Gendron, 2019). Critics of the MBA curriculum are also concerned with the over reliance on Western management theories and models which do not resonate with the African continent's political and socio-cultural environment (Beugre, 2015; Wilson & Thomas, 2012). According to (Honig & Hjortso, 2018), a predominant focus on profitability and competitiveness models results in less attention being directed towards ethics, sustainability and social responsibility. In support of this view, Schlosberg (2016:195) blames the focus on capital accumulation, "capital-cene" as the major contributing factor to environmental harm. In a more recent opinion piece in the Times Higher Education, Rhodes (2023) asks whether elite business schools can live up to the promise of reforming capitalism? These concerns have resulted in calls for the revision of the MBA curriculum in order to free it from a capitalistic ideology (Honig & Hjortso, 2018).

The criticisms against the African MBA curriculum are inescapable given the escalation in unethical and socially irresponsible corporate behaviours (Honig & Hjortso, 2018). The criticism levelled against the MBA programme obligates management education institutions to nurture ethical leadership with a sustainability orientation (Gottardello & Pamies, 2019). The integration of sustainability education into the MBA curriculum is identified as a key imperative for business schools in order to nurture responsible future leaders (O'Flaherty & Liddy, 2018). Sustainability education empowers business leaders to understand the economic, social and environmental impact of corporate decisions (Figueiró & Raufflet, 2015). A focus on sustainability education gains support from the aspirations of Agenda 2063, Principles of Responsible Management

Education (PMRE), and SDGs (Shantz et al., 2023). By incorporating sustainability in management education, there is a better chance to address world's social and environmental challenges such as inequalities, poverty, conflict, global warming, environmental pollution and climate change (United Nations, 2019). Through sustainability education, business schools are expected to be better positioned to impart competencies in corporate social responsibility, and ethical leadership (Findler, 2021; Greenland et al., 2022). A sustainability oriented MBA curriculum also capacitates business schools to enhance shareholder value by exploring the viability of sustainable business models driven by principles of circularity and carbon neutrality.

While some of the business schools have heeded the call to incorporate sustainability education in the MBA curriculum, there are concerns related to the incremental approach that has been employed (Mohr & Purcell, 2020). The majority of business schools have adopted a basic approach of incorporating sustainability and ethics modules in the MBA curriculum. While this step is important it is not adequate as there is a need to align the vision and mission statements of the MBA programme with sustainability principles (Honig & Hjortso, 2018). A commitment to sustainability education should also be reflected in the teaching and learning pedagogy. Sustainability education goes beyond information dissemination through lectures and learning material (Sengupta et al., 2020). Sustainability education should be taught in a way that challenges students to understand and reflect on their worldviews, values and beliefs. This, according to Mohr and Purcell (2020), can be achieved by adopting a transformative reflective learning pedagogy with the use of practical case studies that challenges students to think critically to solve contemporary problems (Ceulemans & Severijns, 2019). In this way, students will be able to understand the consequence of their decisions and assume more responsibility in adopting responsible management practices (Scott, 2009). In order to inculcate a sustainability culture, Emblen-Perry (2018) emphasis the need to transform business schools and position them as sustainable organisations. Such a transformative approach will capacitate business schools to have an integrative approach of implementing sustainability education in their operations. This will allow students to be exposed to the concept of sustainable in their day to day learning activities (Ceulemans & Severijns, 2019).

In promoting sustainability education, there is also need to understand the complexity of the concept of sustainability. Due to its multifaceted nature (Stough et al., 2018; Figueiró, Neutzling & Lessa 2022), sustainability education is subjected to multiple interpretations and this presents a challenge in harmonising its practice. Without a guiding implementation framework, Figueiró et al. (2022) note that the economic dimension which is more aligned to shareholder value is often given more priority at the expense of social and environmental pillars. An earlier study by McDonald et al. (2015) suggest that sustainability may be incorporated in management education through an alignment with global sustainability agendas, such as the 2030 Agenda for sustainable development. With this in mind, the next section discusses the methodology employed to assess the status of sustainability education in African MBA curriculum.

Research methodology

A website based content analysis was conducted to assess the status of sustainability education in the African MBA programme. The target population comprises business schools accredited with the Association of African Business Schools (AABS). The ABBS was considered because it is the foremost accreditation body for business schools in Africa. Accreditation systems provide a fair curriculum representation and have been considered in previous curriculum analysis studies (Navarro, 2008; Stoten, 2018; Wu et al., 2010). It is for this reason that the sample was drawn from MBA programmes accredited by the Association of African Business Schools. The procedure for web-based content analysis was as follows: A list of 51 business schools was drawn from the AABS website. The MBA curriculum for each business school as presented on the respective websites was analysed.

Table 1. Sustainability education related terminology

Corporate citizenship	Corporate governance and ethics
Cultural diversity	Sustainable development
Human rights	Sustainability
Environmental health and safety	Climate change
Sustainable procurement	Community engagement
Biodiversity	Ecology
Peace and human security	Race relations
Natural resources management	Sustainable growth
Circular economy	Green economy

A website based approach was considered appropriate because the information on MBA curriculum is readily available and is also regularly updated. Websites are regarded as a formal source of information and are commonly used as communication tools with key stakeholders. A website based approach also permitted for the application of the same data collection procedure and this enhances methodological coherence. The business schools accredited with AABS have also remained relatively stable over the past 15 years and their websites were considered to have the potential to provide accurate information. A business school was considered as an invalid sample unit if the curriculum content was not presented in English language. With the aid of a web-based research approach, data was collected on the curriculum of African MBA programmes focusing on the mission of the business schools, identification of sustainability related content, the weight assigned to sustainability oriented modules and the teaching methods. Data was collected for a period of 6 months from November 2022 to April 2023.

Data analysis
Document analysis in the form of curriculum analysis was performed. Data analysis involved a detailed process of gleaning through the website pages of AABS accredited business schools in order to assess the attributes and curriculum content of MBA programmes. Following the three-staged procedure of content analysis recommended by Strauss and Corbin (1990), major themes were identified from the curricula that were analysed. Given that sustainability is subject to many interpretations, a checklist for sustainability content was developed by reviewing sustainability related themes from Agenda 2030 Sustainability Development Goals, UNESCO Global Action Programme on Education for Sustainable Development, PMRE and Agenda 2063. This was done in order to have a more inclusive definition of sustainability. Table 1 provides the checklist that was used for sustainability content assessment.

The next section provides the results of the study.

Results
Sample profile
The target population consisted of business schools accredited by the Association of African Business Schools (AABS). The sample frame comprised of 51 business schools. Out of 51 business schools, 9 were excluded because the websites were not in English resulting in 42 websites being analysed. The business schools that were excluded include BEM Dakar, École Nationale de Commerce et Gestion de Settat, Groupe Ecole Supérieure de Commerce de Dakar, Groupe ISCAE, HEM Group, Institut Africain de Management, Institut Superieur de Management, Sup'

Table 2. Sample profile

Country	No. of business schools	Within a university	Independent
South Africa	15	10	5
Kenya	6	4	2
Zambia	2	2	–
Zimbabwe	2	2	–
Morocco	3	–	3
Namibia	3	1	2
Egypt	1	1	–
Botswana	1	1	–
Tanzania	3	2	1
Ghana	3	1	2
Nigeria	3	1	2
TOTAL	**42**	**25**	**17**

Management Mali and Chandaria School of Business (USIU Chandaria). 60% ($n = 25$) business schools were housed within a university faculty and 40% ($n = 17$) were identified as independent. Table 2 provides a summary of participating business schools by country.

Values

The values of business schools were examined in order to understand the identity and the underlying cultural orientation of the MBA programme. The values of MBA programmes reviewed showed that the concept of sustainability is being accorded importance as shown by a focus on ethics, diversity, equity and responsible management. However, it is worth noting that 80% ($n = 20$) of business schools housed within a university faculty did not provide the specific values for the MBA programme. Table 3 provides selected values of MBA programmes.

Mission statement

The mission statements were examined in order to understand the purpose and objectives of the business schools. 42% ($n = 18$) of the mission statements examined focused on leadership development, innovation and entrepreneurship. Only 13% ($n = 6$) of the mission statements reviewed explicitly focused on sustainability. Out of the 5 business schools whose mission statements were aligned to sustainability, only Milpark Business School and American University in Cairo mentioned SDGs and PMRE as blue prints that guide their sustainability thrust. The mission statements of 80% ($n = 20$) MBA programmes of business schools housed in a faculty university could be not established. Table 4 provides selected mission statements of AABS accredited MBA programmes.

Status of sustainability education in African MBA curricula

There is some evidence from the MBA curricula reviewed that business schools are embracing the concept of sustainability education. The majority of African MBA programmes reviewed are migrating from a general MBA to specialisations. The most dominant stream of specialisations focus on managerial functions such as operations management, human resource management,

Table 3. Selected values of MBA programmes

Business school	Values
UNISA Graduate School of Business Leadership	Integrity and ethics, affordable quality education, socially responsible
Rhodes Business School	Diversity and equity, knowledge advancement, quality and innovation, integrity and respect.
Sup' Management	Notoriety, Innovation and excellence
Namibia Business School	Excellence, integrity, accountability and service
Milpark Business School	Commitment to ethics, sustainability and responsible management
UCT Graduate School of Business	Committed to value-based leadership, innovation, creativity and diversity.
Lagos Business School	Thought leadership, ethics, integrity and social inclusion
University of Limpopo Business School	Enterprising, sustainability, diversity
GIMPA Business School	Quality, Innovation and Connectedness
Johannesburg Business school	Pan Africanism, cross cultural competencies, ethical leadership
The American University in Cairo	Sustainability, development and localisation

Table 4. Selected mission statements of AABS accredited MBA programmes

Business school	Mission statement
American University in Cairo	Developing a strategic, holistic and integrated perspective of business, organisations and management.
GIMPA Business School	To be a centre of excellence in the development, application of business management and entrepreneurship.
GIBS	Equipping students with skills, techniques and understanding required for successful managerial careers in private and public entities
UNISA Graduate School of Business Leadership	Training and developing dynamic, ethical leaders for Africa and globally who value diversity and who are educated to enhance human prosperity on the African continent and beyond.
Milpark Business School	Developing ethical leaders for the common good.
Johannesburg Business school	To open a digital world of opportunities.
Rhodes Business School	To educate and influence responsible business practices.
IUM Graduate Business School	To equip business leaders with skills to become world-class executives capable of solving organisational problems and socio-economic transformation
Sup' Management Morocco	Developing a strategic, holistic and integrated perspective of business and organisational management.
International University of Management	To deliver graduates with knowledge and skills in leadership and management for good governance, entrepreneurship and social transformation in the African context.
University of Limpopo Business School	Building capacity to empower societies, the government and business sectors through business education, development and public administration skills.
Namibia Business School	To be an internationally accredited business school noted for high performance in innovative research, learning and teaching, and entrepreneurship training, delivering leaders for the African context.
North-West university business school	Shaping minds of business leaders in Africa

Table 5. Sustainability related modules

Module	Frequency
Corporate governance and ethics	21
Ethical leadership	9
Corporate governance & social responsibility	8
Business ethics	7
Business, government and society	5
Business in society	5
Sustainable development	4
Strategic sustainability management	3
Health care management	3
Environment & waste management	1
Economics for a sustainable world	1
Ethics, ecology and equity	1
Sustainable economics	1
Human factor in sustainable organisations	1
People management	3
Applied sustainable responsible management	1
Managing society & future	1
Business, society & collective action	1

finance and marketing. There are also MBA specialisations in project management and entrepreneurship. A focus on entrepreneurship is mainly being done through social entrepreneurship and social innovation in the form of community based projects. This is encouraging given the high levels of unemployment confronting African countries.

The most interesting specialisations with a sustainability perspective include Health Care Leadership offered by University of Stellenbosch Business School, and National Resource Management offered by Namibia Business School and International University of Management. An MBA programme focusing on health care leadership is timely for the African continent which is grappling with diseases and in dire need for an efficient health care delivery system. Also, the introduction of a speciation in natural resource management is a strategic move to facilitate the efficient extraction and utilisation of natural resources.

However, taken as a whole the African MBA core curricula remain skewed towards financial and economic modelling. The analysis further revealed that only 16 (38%) of AABS accredited business schools have modules or courses related to sustainability issues. It was also noted that top ranked business schools the Gordon Institute Business School and The American University in Cairo with mission statements and values aligned towards sustainability were only offering social innovation as a sustainability oriented model. Despite this, there is evidence that there is a general appreciation of the concept of sustainability with the curricula focusing on the key pillars such as economic, social and environmental. The understanding of sustainability however remains confined to corporate governance and ethics. Table 5 shows the sustainability related modules gleaned from the MBA curricula.

Table 6. Business schools offering compulsory sustainability oriented modules

Business school	Sustainability core modules
Wits Business School	Business, society and collective action
Rhodes Business School	Sustainability, sustainable economics
Milpark Business School	People management, environment management, social responsibility and environment management
University of Free States	Managing Society and the future
University of Cape Town Graduate Business School	Business, government and society
Namibia Business School	Sustainable energy, environmental management systems, forestry and fisheries
International University of Management	
University of Stellenbosch Business School	Business in society, Health care systems & policy, healthcare value-based systems
Limpopo Business School	Economics for a sustainable world, human factor in sustainable organisations, environment and waste management.

Although there is a sizeable number of business schools offering sustainability oriented core modules beyond the nomenclature of corporate governance and ethics as shown in Table 5, few business schools are offering them as compulsory modules as shown in Table 6.

Other business schools such as University of KZN Graduate Business School, Regenesysy, North-West University and UNISA Graduate Business School are offering sustainability modules as electives. The teaching of elective modules depends on the viability of the class and availability of expertise. Business schools with an innovation focus such as Johannesburg Business School, Gordon Institute of Business Schools, Ghana Institute of Management and Public Administration Business School, Emlyon and The American University in Cairo focus on ethical digital leadership. Business schools such as Mzumbe Business School, ES CA Ecole, Midlands State University Graduate Business School, Munhumutapa School of Commerce, Lagos Business School and University of Ghana are yet to integrate sustainability modules in their curriculum.

Teaching pedagogy

Case studies, simulations, face-to-face lecturers, seminars and global exchanges were identified as the most popular teaching methods across the business schools reviewed. Case studies and simulations are intended to equip MBA students with problem solving skills necessary to address real business challenges. Through face-to-face lectures, networking amongst MBA students is enhanced and in this way social capital is developed. Seminars with experts from the industry and non-profit making organisations are also used as a platform for sharing contemporary challenges in the business environment. For the majority of business schools (89%, $n = 37$), the global tour programme is compulsory and it is intended to capacitate MBA students to appreciate the intricacies of conducting business in global markets. It was also noted that very few business schools (16%, $n = 8$) utilises experiential field work and projects as a teaching method.

MBA delivery models

The majority of business schools (76%, $n = 32$) rely on modes of delivery such as full time, modular and part-time. Only a few business schools (24%, $n = 10$) are offering a wholly online

MBA programme. The predominant use of full time, modular and part-time is regarded as resource intensive from an administrative perspective. These modes of lecture delivery often result in premium fees which have the potential of limiting access to management education.

Discussion of results

The African business schools position themselves as educators of future business leaders. However, a review of the African MBA curricula showed that it is not yet fully geared towards promoting education for sustainability. For instance, the results of this study revealed that the concept of sustainability has not been sufficiently integrated into the African MBA curricula. The study showed that a significant number of MBA programmes housed within a university faculty lack specific sustainability values. This makes the identity of the MBA programmes to be blurred. In the absence of a shared set of sustainability values, Mohr and Purcell (2020) argue that it will be difficult to develop and embed a sustainability culture within the business school. Without a clear set of values, the task of inculcating pro-sustainability world views, beliefs and norms will be difficult (Sengupta et al., 2020). For long the African MBA curricula have been criticised for regurgitating western ideologies and philosophies (Honig & Hjortso, 2018). Thus, to address this recurring criticism, African MBA programmes should be anchored by a set of values that enable the implementation of sustainability education whilst being attentive to socio-cultural imperatives. Sustainability should also be construed as a change process. According to Mohr and Purcell (2020), the transformative process is more likely to be achieved through a shared value system. From a sustainability education perspective, Faham et al. (2017) opine that the focus should not only be on imparting sustainability knowledge but also on nurturing and entrenching sustainability values in order to enhance transformative behavioural change.

The findings of this study also revealed that some of the MBA programmes do not have specific mission statements. Without a sustainability oriented mission statement, it will be difficult for the MBA programme to be more geared to address sustainability challenges (Rubin & Dierdorff, 2009). This poses as an existential threat to the competitiveness of the programmes because of lack of clarity of purpose and learning outcomes (Bevelander et al., 2015). It was also noted that the mission statements of some MBA programmes are still centred on leadership, research and community engagement and the centrality of sustainability education is not prioritised. Of major concern also is that some business schools are adopting a piecemeal approach of revising mission statements without significantly changing their curriculum. Mohr and Purcell (2020) criticised this incremental approach of incorporating sustainability in management education. Without a commitment to MBA curriculum re-orientation, it will be difficult to impart sustainability knowledge. This is so because without a focus on key deliverables in the curriculum, Honig and Hjortso (2018) reasoned that sustainability education will depend on the motivation and willingness of lecturers to incorporate it in their teaching.

There is evidence that sustainability is being embedded in the African MBA programmes, however more still needs to be done as the curricula remain skewed towards shareholder value oriented modules such as financial management, economics and investment analysis. This finding is consistent with the observation by Honig and Hjortso (2018) who found the dominance of focus areas that revolve on profit maximisation and competitiveness at the expense of sustainability oriented themes. It is for this reason that in an earlier study, Jabbour et al. (2013) warned that there is a risk that business schools are only focusing on the economic dimension of sustainability. It is also important to note that the majority of business schools are offering sustainability modules as electives. This approach is an affront to the goal of sustainability education because in most cases such electives are given low credit rating and their offering depends on availability of expertise and viability of classes. This finding is consistent with that of Sharma and Hart (2014) and Figueiró et al. (2022) who reported that business schools are superficially responding to the call for

sustainability education by introducing electives related to corporate social responsibility and ethics which in most cases are not integrated into the MBA core curriculum.

There is also a concern that the incorporation of sustainability modules may not be adequate in fully addressing the multifaceted and multi-layered nature of sustainability education. The module approach is limited as it is regarded as driven by a fragmentary approach which is limited in driving transformative change required for business schools to develop a robust sustainability culture (Gottardello & Pamies, 2019). In this regard, Sengupta et al. (2020) submit that sustainability education should be construed as a multidisciplinary concept with cross-cutting themes. In the same vein, Gottardello and Pamies (2019) also supports the need to move away from the practice of confining sustainability education to a few modules. They recommended the incorporation of sustainability education in each module. For instance, a holistic MBA sustainability education oriented curriculum may focus on sustainability business models, sustainable production and consumption, sustainability reporting and sustainable human resource management among others. In order to fully integrate sustainability education in business schools, previous studies (e.g., Ceulemans & Severijns, 2019; Cicmil et al., 2017; Emblen-Perry, 2018; Kohl et al., 2022) suggest the need to adopt a holistic approach that does not only focus on curriculum but also on values and mission, operations, research and governance.

It was also found that sustainability has been narrowly constructed to refer to corporate social responsibility and ethics. This has resulted in other pertinent sustainability issues such as culture and diversity, healthcare management, social innovation and political economy to be overlooked. The African continent has a mosaic cultural orientation and there is a need to equip managers on how to localise their market offerings (Honig & Hjortso, 2018). It was also encouraging to note that some business schools such as University of Cape Town Business Schools and Gordon Institute of Business Science consider diversity as one of the recruitment criteria along with a blend of local and international lecturers.

With the global population projected to increase from 7.5 billion to 9.8 billion by 2050, Greenland et al. (2019) underscore the need to put more focus on the social pillar of sustainability in management education. In this regard, a focus on health care management is commendable as it is necessary to address health care challenges and chronic diseases confronting African economies (Mishra & Maiko, 2017). Social innovation is also necessary to promote entrepreneurial ventures to address poverty and unemployment. A focus on the political economy is also necessary as an avenue to address conflicts and promote democracy in Africa. This view is supported by Brundiers et al.'s (2021) argument that sustainability efforts are only possible if supported by good political governance.

Case studies, simulations, seminars and global tours were identified as the most popular teaching methods across the business schools reviewed. In management education, case study analysis is identified as the most preferred method for developing critical thinking and analytical skills necessary to address complex decision making problems (Khurana & Nohria, 2008). However, Marathe et al. (2020) cautioned against the use of case studies arguing that they are too abstract, theoretical and lack the link with the practical aspects of sustainability education. Although the AABS promotes the development and use of case studies with an African focus through the Emerald case competition, there are concerns that some of the case studies used by African Business Schools are developed by international students or lecturers who may not have a good appreciation of Africa's socio-cultural realities (Honig & Hjortso, 2018). Furthermore, Honig and Hjortso (2018) note the over reliance on Harvard Business School case studies which often do not have a detailed appreciation of the African business environment. A decision by Wits Business School in South Africa to have case study competition as a compulsory module is commendable. It is hoped that such home grown case studies will focus on pertinent African challenges that affect managerial decision making such as cultural diversity, inequalities, conflict and corruption.

Simulations are also commonly used to enhance critical thinking and problem solving skills. There are however concerns that the multifaceted concept of sustainability cannot be learned by mere exposure to scenarios in a simulated environment (Myers & Beringer, 2010; Sengupta et al., 2020;

Yadav & Prakash, 2022). For example, Myers and Beringer (2010) found that students are more likely to understand sustainability issues when such knowledge is delivered through participative community based projects. Experiential learning and field experiences are considered to be more effective in imparting sustainability literacy (Awaysheh & Bonfiglio, 2017; Sengupta et al., 2020). For instance, the University of Cape Town Business School's social innovation lab is a good initiative but it needs to be implemented in real life environments in form of entrepreneurship incubation hubs to address challenges such as unemployment. In this way Awaysheh and Bonfiglio (2017) opine participants will be able to develop practical skills and acquire knowledge in a real life learning situation. In view of this, other business schools may need to take a leaf from business schools such as the Gordon Business School which offers immersion projects as part of their curriculum. Although the use of the compulsory global tour module is important to understand the global business environment, some business schools send their MBA students mainly to developed countries such as Russia, France and Netherlands among others whose business environments significantly differ from the African context. A blended approach of focusing on Africa and emerging markets such as China, Brazil, India, Singapore among others is encouraged as they are the major trading partners for Africa.

Implications of the study

This study offers four major insights to policymakers and business schools managers intending to embed sustainability education in the MBA curriculum. First, the study underscored the need for business schools to develop sustainability oriented values and mission statements. This is important in order to inculcate a sustainability culture within the business schools. As sustainability is a key imperative based on SDGs, PMRE and Africa's Agenda 2063, the AABS in its capacity as the professional body of MBA programmes may need to set the criteria for values and mission statements. For instance, the Association to Advance Collegiate Schools of Business regularly review standards for MBA accreditation. This will go a long way in specifying the identity of the African MBA programmes to key stakeholders. Second, there is also a need for a paradigm shift in the teaching pedagogies for sustainability education from simulations to experiential learning. This can be done by applying Kolb's (1984) experiential learning model. MBA students will be given exposure to learn from real life experiences and engage in reflective learning which will capacitate them to develop practical solutions to address the identified challenges. In that way, students will acquire practical competencies and the MBA programmes will regain legitimacy in the society. There is also a need based on Honig and Hjortso's (2018) observation to develop case studies, models and theories from African generated content. This is important to address the recurring concern of over reliance on western teaching material.

Third, the MBA curriculum should be designed in a manner that accommodates the multidisciplinary nature of sustainability. The influence of sustainability in functional MBA modules needs to be considered during curriculum design. For instance, emerging sustainability sub-themes such as sustainability accounting, sustainable production and consumptions, sustainable business models and sustainable supply chain management among others should be considered. A multidisciplinary approach to sustainability should be supported by equipping teaching staff with relevant skills related to content development and teaching pedagogy.

Lastly, the study results showed that African business schools are still at the most basic level of implementing sustainability wherein the focus is on offering sustainability oriented modules. Rather than focusing on a piecemeal approach of curriculum re-orientation, as recommended Sengupta et al. (2020), there is need for a wholesome cultural change focusing on values, mission statement, research, governance and operations. This can be done by moving away from the 'build-on' which focuses on the introduction of selected sustainability modules to a 'build-in' approach that focus fostering a sustainability culture in all operations of the business school (Disterheft et al., 2015; Shawe et al., 2019). A typical example of a business school that has adapted this approach, is Rhodes Business School which is aptly positioned as a school for sustainability

leadership. Rather than merely focusing on normative sustainability modules such as corporate social responsibility and ethics, business schools are also challenged to drive sustainability innovations such as geo-engineering with a focus on decarbonisation and achieving net zero targets (Schlosberg, 2016). In regard, business schools should drive a holistic ecological pedagogy that champions sustainable innovations such as ocean seeding and ecological engineering.

Limitations and further research

This study has inherent limitations worth noting. First, data was collected with the aid of web-based content analysis of business schools and the MBA curriculum. Thus, the quality of the data was influenced by the frequency of website updates and data availability. Second, some of the websites of business schools were excluded due to language of use and chances are that valuable insights may have been missed. Future studies may address this limitation by conducting in-depth interviews with deans of business schools to get first-hand information. Lastly, the study also focused on African business schools accredited to the AABS. As a result, business schools accredited with other country specific bodies were not considered. Thus, the findings of this study may not be generalised to all business schools in Africa. Despite the aforesaid limitations, effort was expended in minimising bias and we believe that the study provides a snap shot of the status of sustainability education in AABS accredited business schools.

Conclusion

A web-based content analysis was done to assess the status of sustainability education in AABS MBA accredited programmes. The results of this study showed that the concept of sustainability has not been sufficiently integrated into the African MBA curricula. The values and mission statements of the majority of business schools were found not to be aligned to the principles of sustainability education. This casts doubt on the level of commitment of African business schools to embrace the sustainability education agenda. Shareholder value oriented modules constituted the core curriculum of the MBA programmes analysed. An elective module approach was found to be the most dominant strategy used by African business schools to integrate sustainability education in the MBA curriculum. The elective approach was considered to be inadequate as such modules are mainly offered based on viability of classes and availability of teaching expertise. Case studies and simulations were found to be the main teaching pedagogies used to impart sustainability knowledge. The use of experiential learning was identified as an innovative effective teaching pedagogy for equipping MBA students with practical real life problem solving stills. An integrative approach of embedding sustainability education focusing on re-orientation of the business schools' values, mission, operations and governance is recommended.

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Appendix

Table A1.

Name of Business School	Country
**BEM Dakar	Senegal
Copperbelt University School of Business	Zambia
Eastern and Southern African Management Institute	Tanzania
Emlyon-Casablanca	Morocco
ESCA Ecole de Management	Morocco
**École Nationale de Commerce et Gestion de Settat	Morocco
Garden City Premier Business School	Nigeria
Ghana Institute of Management and Public Administration Business School	Ghana
Gordon Institute of Business Science (GIBS)	South Africa
**Groupe Ecole Supérieure de Commerce de Dakar	Senegal
**Groupe ISCAE	Morocco
Harold Pupkewitz Graduate School of Business	Namibia
**HEM Group	Morocco
Henley Business School	South Africa
**Institut Africain de Management	Namibia
**Institut Superieur de Management (Campus SAS)	
International University of Management (IUM)	Namibia
Johannesburg Business School	South Africa
Kenyatta University	Kenya
Lagos Business School	Nigeria
Midlands State University Graduate School of Business Leadership	Zimbabwe
Milpark Business School	South Africa
MOI University School of Business and Economics	Kenya
Mount Kenya University	Kenya
Munhumutapa School of Commerce	Zimbabwe
Mzumbe University School of Business	Tanzania
Namibia Business School	Namibia
Nelson Mandela University	South Africa
Nnamdi Azikiwe University, Awka (Unizik)	Nigeria
Nobel International Business School	Ghana
North-West University	South Africa
Regenesys Business School	South Africa
Rhodes University School of Business	South Africa

(*Continued*)

Table A1. (*Continued*)

Name of Business School	Country
Jomo Kenyatta University of Agriculture and Technology	Kenya
Strathmore Business School	Kenya
**Sup'Management Mali	Mali
Sup Management Morocco	Morocco
The American University in Cairo	Egypt
**Chandaria School of Business (USIU Chandaria)	
University of Botswana Faculty of Business	Botswana
University of Cape Town Graduate School of Business (UCT GSB)	South Africa
University of Dares Salaam Business School	Tanzania
University of Ghana	Ghana
University of KwaZulu Natal	South Africa
University of Limpopo Turfloop Graduate School of Leadership	South Africa
University of Lusaka	Zambia
University of Nairobi School of Business	Kenya
University of South Africa School of Business Leadership (UNISA)	South Africa
University of Stellenbosch Business School	South Africa
University of the Free State	South Africa
University of the Witwatersrand Business School (Wits Business School)	South Africa

**were excluded from analysis due to language of use or website accessibility challenges
Source: Association of African Business Schools (2020).

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