2022

The Determinants of sustainability content integration in graduate business programs in Kenya

Cecilia Waireri
Strathmore Business School
Strathmore University

THE DETERMINANTS OF SUSTAINABILITY CONTENT INTEGRATION IN GRADUATE BUSINESS PROGRAMS IN KENYA

CECILIA WAIRERI

102751

A DISSERTATION SUBMITTED TO THE STRATHMORE UNIVERSITY BUSINESS SCHOOL IN PARTIAL FULFILLMENT FOR THE MASTER OF SCIENCE DEVELOPMENT FINANCE

STRATHMORE UNIVERSITY

NOVEMBER 2021

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the thesis/dissertation (use as appropriate) contains no material previously published or written by another person except where due reference is made in the thesis/dissertation itself.

Name of Candidate Cecilia Waireri

Date: 14/11/2021

Approval

The thesis/dissertation of Cecilia Waireri was reviewed and approved by the following:

Name of Supervisor: Dr. David Mathuva

School/Institute/Faculty: Strathmore University Business School

Dr. George Njenga

Executive Dean

Strathmore University Business School.

Dr. Bernard Shibwabo

Director, Office of Graduate Studies

ABSTRACT

Business schools have traditionally been seen to teach courses that are geared towards shareholder wealth or profit maximization at the expense of society or the environment. However, in recent times there has been a surge in business failures and corporate scandals and the reason for this has been identified as a loss of values. Due to this university business schools have been pressured to incorporate sustainability to focus the attitudes and perceptions of future business leaders to sustainable businesses that consider not only the shareholder wealth but also the society and environment. There is limited research carried out in African countries such as Kenya in examining the extent of sustainability integration. Given that economic sustainability is a given in business programs the study sought to examine the extent of integration of environmental, social and cross-cutting sustainability content in business graduate programs in Kenya. Previous research has highlighted that the determinant factors of size, status of the university, gender of the dean, accreditation status and mission/vision statement are the main determinants of sustainability integration in business programs. The study thus sought to determine whether these factors do have an impact on sustainability integration in Kenyan business graduate programs. A census was carried out on the graduate business programs. Descriptive research design was used. Data was analyzed using descriptive statistics, inferential statistics, factor analysis and content analysis. For social sustainability, the findings indicate that the extent of integration had an aggregate mean of 2.1 and standard deviation of 1.0 implying that social sustainability aspects in the course programs had been integrated to a small extent. For environmental sustainability, the findings indicate that the extent of integration had an aggregate mean of 1.2 and standard deviation of 0.4 implying that environmental sustainability aspects had not been integrated in the course programs. For cross-cutting sustainability, the findings indicate that the extent of integration had an aggregate mean of 2.1 and standard deviation of 0.7 implying that cross-cutting sustainability aspects in the course programs had been integrated to a small extent. Non-parametric mean comparison statistics showed statistically significant differences in status of the university, size of the university and sustainability inclusive mission/ vision statement in relation to the integration of social, environmental and cross-cutting sustainability aspects in business graduate programs. Further logistic regression tests carried out showed that the factors of status and size of the university were only factors that showed significant results in analyzing the relationship between the explanatory factors and social sustainability. The model (explanatory factors) explains 48.2% of the variance in the dependent variable (social sustainability integration). The logistic regression showed that for size and status of the university there is a likelihood of higher integration of social sustainability in private universities and in small and medium sized universities. The determinant factors of size, status of the university, gender of the dean, accreditation status, and mission/vision statement did not have significant logistic results in influencing environmental and cross-cutting sustainability. The study recommended that business schools in Kenya should integrate relevant social, environmental and cross-cutting sustainability aspects in graduate business programs. The universities should also streamline their mission and vision statements to become sustainability inclusive.

Key words: *Sustainable Development, Curriculum, Content analysis, Graduate Business Programs, Kenya*

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABBREVIATIONS

AACSB	Association to Advance Collegiate Schools of Business
AABS	Association of African Business Schools
AAU	Association of African Universities
ABIS	Academy of Business in Society
AMBA	Association of Maters in Business Administration
CFA	Confirmatory Factor Analysis
CSR	Corporate Social Responsibility
DESD	Decade of Education for Sustainable Development
EMBA	Executive Master of Business Administration
GDP	Gross Domestic Product
GESIP	Green Economy Strategy and Implementation Plan
ESD	Education for Sustainable Development
EFMD	European Foundation for Management Development
EQUIS	European Quality Improvement System
ESD	Education for Sustainable Development
GUNI	Global University Network for Innovation
HEI	Higher Education Institutions
IAU	International Association of Universities
KNBS	Kenya National Bureau of Statistics
KNATCOM	Kenya National Commission for UNESCO
KMO	Kaiser-Meyer Olkin
NCCAP	National Climate Change Action Plan
PRME	Principles for Responsible Management Education
SD	Sustainable Development
SDG	Sustainable Development Goals
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNEP	United Nations Environmental Program
WCED	World Commission on Environment and Development

DEFINITION OF TERMS

Sustainability	Development that meets the needs of the present without compromising the ability of future generations to meet their own needs(Setó-Pamies & Papaoikonomou, 2016).
Education for sustainable development	It is an all-inclusive and transformational education that addresses learning content, teaching pedagogy and an educational environment aimed at providing every person with the knowledge, skills, attitudes and values that will promote a sustainable future (UNESCO, 2017)
Environmental Sustainability	Refers to a condition of balance that allows human beings to meet its needs without exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs without diminishing biological diversity (Longoni & Cagliano, 2015).
Social Sustainability	Refers to actions of formal and informal processes, structures and systems that ensure the preservation and creation of skills as well as the capabilities of future generations by promoting healthy and livable communities(Longoni & Cagliano, 2015).

Cross-cutting sustainability	Relate to themes that integrate the social, environmental and economic sustainability (Akeel et al., 2019).
Sustainability content	Refer to the coverage of sustainability topics in a curriculum emphasizing the link of environment, economy, and society along with the multidimensional problem-solving strategies for addressing sustainability challenges(Akeel et al., 2019).

ACKNOWLEDGEMENTS

First, I would to thank the Almighty God for the gift of life and wisdom that he granted and enabled me to pursue this project. I would like to thank the Dr. Mathuva, Dr. Wanjiru, Dr. Mogire, Joseph and Rose for their helpful comments in preparation of this research thesis. I also thank the Research office especially Paul of Strathmore University Business School for facilitating the research process. I am also thankful to my family and friends for their encouragement and support.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Integration of corporate social responsibility (CSR) and ethics into business school curriculum began during the 1960s to 1970s as a result of society criticism(Sharma & Hart, 2014). However since the 1980s with the Bruntland Commission there has been a push for businesses to integrate sustainability in their operations to address the negative social and environmental impacts(Sharma & Hart, 2014). Many authors define sustainability based on the definition adopted by the Bruntland Commission WCED (1987) where it is defined as "development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (Rundle-Thiele & Wymer, 2010; Setó-Pamies & Papaoikonomou, 2016). For purposes of this research based on previous research carried out by other authors, other terms apart from sustainability such as sustainable development have also been utilized for analysis (Jorge et al., 2015; Rundle-Thiele & Wymer, 2010).

The integration of sustainable development has become a relevant topic in higher education and higher education institutions are aiming at being agents in promoting sustainable development principles (Stough et al., 2018). Specifically business schools have a responsibility of preparing their graduates to make ethical and sustainable oriented management decisions (Stough et al., 2018; Wu et al., 2010). With the recent business failures and corporate scandals, universities business programs have been pressured to incorporate sustainability (Larrán et al., 2017). In addition to this, higher education institutions are faced with increasing request by quality management institutions, accreditation bodies and other players in sustainable development to disclose how they integrate sustainability in their operations, research, operations, stakeholder engagement and curriculum (Stough et al., 2018).

African higher education institutions through the Association of African Universities (AAU) highlighted that sustainability education is indispensable in the 21st century (AAU, 2009). Despite African higher education institutions committing themselves to integrating sustainable

development in their curricula and day to day operations, there have been few studies that determine the roles played and what practices exist to realize sustainability by higher educational institutions (GUNI et al., 2011). In a survey carried out on 73 African Universities four of them being Kenyan, the research showed that there is minimal research carried out in relation to sustainable development (GUNI et al., 2011). The study also noted that there are minimal curriculum assessments carried out by higher education institutions. As universities become involved in and engaged with sustainability, there has been a emergent need to evaluate how their curricula addresses sustainable development with its innumerable issues (Lozano & Young, 2013a). Carrying out assessments can thus offer university leaders a starting point for change (Stough et al., 2018).

Awuzie and Emuze (2017) noted that sustainability in business programs means going beyond the economic sphere and including the environmental and social spheres. Given that economic sphere is a given in business programs, this study aimed at carrying out a sustainability content assessment of graduate business programs with a view of determining whether they go beyond the economic sphere and include environmental, social and cross-cutting spheres of sustainability. This is in line with suggestion by Etse and Ingley (2016) on the need to do further research on sustainability since little is being done to draw awareness to the insufficiencies of curricula relative to sustainability. Within the Kenyan context there is need to educate in environmental spheres since Kenya is considered as a high risk country with lack of coping strategies in terms of environmental hazards such as floods and droughts that lead to death with 36 out of 47 counties experiencing flooding(National Treasury, 2020). There is also a need to check whether social issues are being taught in business schools given that the Kenyan society has witnessed collapse of corporations due to social issues such as corruption, theft, bribery and fraud (Onyonyo, 2015). Further the country faces a number of social issues such as lack of peace and security, poverty and unemployment (National Treasury, 2020). There is also need to check on cross-cutting sustainability issues such as ethics, governance since lack of good governance practices has led to collapse of corporations(Onyonyo, 2015). Carrying out assessments is indispensable in institutions in order to benchmark the initiatives, recognize weak areas, measure growth with time, define priorities in ESD and provide them with a base for comparing and appraising their sustainability efforts (GUNI et al., 2011). The research focused on graduate

masters programs since majority of the students are leaders and managers in diverse companies and sectors ranging from engineering, finance, public service etc. and it is crucial that the students understand the importance of sustainability in the business operations (Annan-Diab & Molinari, 2017).

Empirical reports suggest that accreditation is one of the main institutional forces that can enhance the incorporation of courses related to sustainability in business and management programs(Larrán et al., 2014, 2017). A review of the accreditation standard for academic programs developed by the Commission of University Education in Kenya (CUE, 2020) unlike those of developed countries such as United Kingdom as highlighted by Cooper et al. (2014) or South Africa as highlighted by Awuzie and Emuze (2017), the standard only stated social responsibility as one of the necessary curriculum component. Based on this the pressure could then be coming from other quality assurance bodies such as international accreditation bodies. Grounded on this, the study aimed at carrying out an investigation to establish whether there is a variation in the level of integration of sustainability in institutions belonging to international accreditation bodies versus those that do not belong.

The present research in a Kenyan context also focused on assessing the influence exerted by other factors such as size, status of the university, mission/vision statement that previous research has shown as the main factors that have an impact on level of sustainability integration (Jorge et al., 2015; Larrán et al., 2014). It also assesses impact of gender of the dean an aspect that had not been included in previous research such as (Jorge et al., 2015; Larrán et al., 2014, 2017).

1.1.1 Education for Sustainable Development (ESD) in Kenya

Education is the fourth SDG goal. Specifically Target 4.7 of the UN resolutions that is focused on sustainability education targets that by 2030 all learners will acquire knowledge and skills needed to promote sustainable development and sustainable lifestyles (United Nations, 2015). Education for Sustainable Development (ESD) is a broad and evolving terminology that can be interpreted as all-inclusive and transformational education that addresses learning content, teaching pedagogy and an educational environment aimed at providing every person with the knowledge, skills, attitudes and values that will promote a sustainable future (UNESCO, 2017).

Various policies and frameworks have been developed to support the ESD agenda in Kenya. Some of them include the National ESD strategy developed by NEMA to support the DESD declaration. The strategy outlines the execution and vision of ESD in the Kenyan context (NEMA, 2012). The Kenyan Education for Sustainable Development Policy for the Education Sector provided for the inclusion of key themes of sustainable development such as human rights, poverty alleviation, health, innovation, environmental protection and climate change into the Kenyan education system (Ministry of Education, 2017). The policy was aimed at equipping the learners with the knowledge, values, attitudes and skills necessary for contributing to sustainable development. The National Education for Sustainable Development Policy sort to address the gaps in the achievement of SDGs and to address the new social, environmental and economic challenges that are necessary to achieve Kenya's vision 2030 agenda (Government of Kenya, 2013). The Kenya Vision 2030 agenda highlighted the important place education has in ensuring relevant human and social capital for sustainable development (Ministry of Education, 2019). A review of the policies highlight the fact that although Kenya has made steps in the education sector to address the sustainability agenda from a policy perspective, there are still gaps that need to be addressed to mainstream the sustainability agenda (Government of Kenya, 2013; KNATCOM, 2019; Ministry of Education, 2017).

1.1.2 Sustainability content assessment

Sustainability content assessment is the practice of measuring the effort made in an educational program of a higher education institution towards sustainability integration leading to increased student literacy on sustainability (Lozano et al., 2019; Stough et al., 2020). The purpose of carrying out such assessments include monitoring and communicating the extent of integration, cross-institutional appraisal, complying with accreditation requirements, meeting demands of quality management systems, benchmarking and the development of internal strategies aimed at enhancing sustainability performance (Stough et al., 2018, 2020).

In higher education, sustainability assessments have examined areas such as university operations, community outreach, buildings, curriculum and extra-curricular activities. Some of the frequent ones include Auditing Instrument of Sustainability in Higher Education (AISHE),

Graphical Assessment for Sustainability Universities (GASU), Unit Based Sustainability Assessment (USAT) and Sustainability Tool for Assessing Universities Curricula Holistically (STAUNCH) (Akeel et al., 2019; Kariaga et al., 2013; Lozano et al., 2019). Akeel et al. (2019) carried out a review of sustainability assessment tools and noted that the STAUNCH tool is ideal for sustainability content assessment since its focus is on ascertaining the extent to which sustainability themes are incorporated into the curriculum. Based on this for the purpose of this study, the themes derived from STAUNCH sustainability assessment tool were utilized to carry out curriculum assessments. STAUNCH analyses sustainability curricula by examining the course units based on 37 sustainability topics across sustainability themes that are divided across economic, social, environmental and cross-cutting dimensions. It has been used as a sustainability assessment tool in Europe, Wales, Nigeria and it focusses on sustainability content which makes the themes it uses ideal for this study (Akeel et al., 2019; Lozano et al., 2019).

The STAUNCH curriculum assessment environmental theme has ten sub-themes, economic sustainability module has six themes, social sustainability module has eleven sub-themes and the cross-cutting sustainability theme has ten sub-themes (Akeel et al., 2019). The study shall concentrate on the social, environmental and cross-cutting themes of sustainability. We compared the themes included in STAUNCH and noted that they were similar to those utilized in other studies that reviewed content of business graduate programs such as Wu et al. (2010) where the authors reviewed web content for Universities across the world and Zhan et al. (2015) where the authors reviewed massive open online courses. The themes are also similar to the sustainable development themes that are included in the Kenya Education Policy on Sustainable Development (Ministry of Education, 2017). The study entailed examining the extent to which the themes based on the STAUNCH assessment tool are encompassed in the graduate programs of Kenyan business schools.

1.1.3 Factors that influence level of sustainability integration.

Accreditation bodies increase the pressure of business schools to carry out sustainability curriculum assessments (Stough et al., 2020). Further, the main catalyst to enhancing sustainability integration into the curriculum has been shown to be joining initiatives and

accreditation bodies (Beddewela et al., 2017; Mburayi & Wall, 2018; Rasche & Gilbert, 2014). Various authors have shown that university business schools that are members of sustainability related initiatives and accreditation bodies such as AASCB, AMBA, PRME etc. are more likely to incorporate sustainability into their curriculum since it is a requirement of belonging to such initiatives (Barber et al., 2014; Cooper et al., 2014; Jorge, Peña, et al., 2015). However such studies have been done in developed countries and scanty research has been carried out in developing countries (Doh & Tashman, 2014; Doherty et al., 2015). Although there has been research carried out to assess the impact of accreditation bodies on sustainability there is need for more research to compare accredited and non-accredited schools from the point of view of actively integrating sustainability in their curriculum (Barber et al., 2014; Cooper et al., 2014; Rasche & Gilbert, 2014). To fill in this gap, this research aimed to contrast the extent of integration in universities that belong to international accredited bodies versus non-accredited business schools in a developing country perspective.

Research has shown that status of the university as public or private affects the inclusion of relevant sustainability content. A review of previous studies has shown that private universities tend to offer courses on sustainable development due to various reasons such as religious affiliation of the private universities leading them to care more for societal needs while others have shown that private universities offer sustainable development courses as a source of competitive advantage to attract more students (Larrán et al., 2014, 2017). However Moon and Orlitzky (2011) had a contrary opinion where the authors noted that public universities may have a greater commitment in their course work to corporate social responsibility and sustainability. The research thus sought to determine whether public or private universities have a greater sustainability content integration.

In relation to size of the university a study carried out by Jorge et al. (2015) they noted that large universities have a higher likelihood of integrating sustainability in their curriculum and operations. This is because they have a wider audience and thus tend to want to portray a better image by showing higher levels of commitment to sustainability. However there was a contrary opinion where Ferrer-Balas et al. (2008) noted that large universities are complex organizations and this reduces the likelihood of transformation to incorporate sustainability content. Nicholson

and DeMoss (2009) also noted that smaller universities tend to have greater inclusion since they have creative curricula and teaching pedagogies that are not practical for large Universities. The research thus sought to determine which size of the university has an impact on sustainability integration.

Bedoya-Dorado et al. (2021) noted that of the 86 universities reviewed, only 60% of Universities in Colombia had integrated sustainability in their mission statements. Mission and vision statements provide direction for the organization and thus organizations that have sustainability oriented mission statement are more likely to integrate sustainability (Deus et al., 2016). This study thus first sought to determine whether universities had sustainability aspects integrated in the mission and vision statements. Further it sought to determine if having a sustainability oriented mission statement does have an impact on the extent of sustainability integration in the business programs.

Gender has also been shown to affect the level of sustainability integration with studies showing that women are more perceptive towards sustainability compared to men(Al-Naqbi & Alshannag, 2018; Heeren et al., 2016; Jorge et al., 2015). Rutherford et al. (2012) noted that female deans will be more likely to require an ethics course as part of the core business curriculum. On the other hand Jonson et al. (2015) noted that there were no differences in gender in relation to ethical or responsibility decision making. This would imply that gender of the dean does not have an impact on the extent to which sustainability is integrated in the curriculum. This study thus sought to determine whether gender of the dean does have an impact on the extent to which sustainability is integrated.

1.2 Statement of the Problem

HEIs in Africa are recognized as key agents for improving sustainable development however there are few studies to demonstrate what practices exist in the institutions to attain sustainability (GUNI et al., 2011). In the Kenyan context there are 43 universities offering 77 business related courses (CUE, 2020). Business schools that are also part of the HEIs do also have a role to play in enhancing sustainability. One of the ways in which the institutions can demonstrate their role in sustainability integration is carrying out curriculum assessments. Ministry of Education of

Kenya stated that one of the challenges that Education for Sustainable Development (ESD) implementation faces is lack of tools for monitoring and evaluation (Ministry of Education, 2017). One of the tools that can be used to monitor and evaluate the integration of ESD in the curriculum is carrying out sustainability content assessments (Lozano & Young, 2013a). The present study attempts to address the problem identified by the Ministry of Education of Kenya of lack of tools to monitor and evaluate sustainability by looking at how a sustainability content assessment can be carried out based on a tool (STAUNCH) that has been utilized in other regions to review and monitor the extent of sustainability integration in the Kenyan context.

Sustainability content assessments indicate the level of integration of sustainability in the curriculum of business schools (Stough et al., 2020). Hart et al. (2015) highlighted that the extent to which sustainability is integrated and emphasized is influenced by factors that differ based on the geographic region. In the Kenyan context, with the high risk of environmental hazards that have a significant effect on businesses (National Treasury, 2020) and the rise in corporate scandals as a result of degradation of society values and ethical malpractices (Onyonyo, 2015), there is need to investigate whether environmental, social and cross-cutting issues are included in business curriculum based on the fact that sustainable education has been seen to impart knowledge, skills, attitudes and values that will promote a sustainable future (UNESCO, 2017). Carrying out a curriculum assessment will also highlight the advances made by Kenya in achieving target 4.7 of the SDG's that targets that learners should acquire knowledge and skills to promote sustainable development (UNESCO, 2017).

Existing literature shows that to date, sustainability has not become mainstreamed in higher education in business education despite there being numerous initiatives that aim at spearheading such a change (Cooper et al., 2014). Previous research has explicitly examined a variety of factors that influence the integration of sustainability issues in business curriculum (Jorge et al., 2015; Larrán et al., 2014). Factors that have been highlighted by previous literature include size, status of the University, mission/vision statement and membership to accreditation bodies (Deus et al., 2016; Jorge et al., 2015; Larrán et al., 2017). As these have been highlighted as the main determinant factors in previous research, the current research shall focus on examining whether these factors do have an impact on sustainability content integration in the Kenyan setting. The

study also examines the impact of gender of the dean on sustainability integration. Literature review revealed that there is a dearth of studies on sustainability content integration in African countries (Akeel et al., 2019; Etse & Ingley, 2016). Different geographical locations show different levels of integration of sustainability as highlighted by Hart et al. (2015) thus it is considered timely and necessary to provide an analysis of the main explanatory factors in determining the integration of sustainability in the Kenyan context

1.3 Research Objectives

1.3.1 General Objective

The general objective of the research was to assess the extent of integration of the environmental, social and cross-cutting sustainability content in business programs Further it seeks to establish whether the factors (Size, status of the university, gender of the dean, mission/vision statement, accreditation status) determine environmental, social and cross-cutting sustainability integration in business graduate programs in Kenya.

1.3.2 Specific Objectives

With a focus on Kenyan universities the study sought to address the following specific objectives:

1. To investigate the extent of integration of relevant environmental sustainability issues in graduate business programs.
2. To determine magnitude of integration of relevant social sustainability issues in graduate business programs.
3. To investigate level integration of relevant cross-cutting sustainability issues in graduate business programs.
4. To provide evidence on the whether the explanatory factors of size, status of the university, gender of the dean, mission/vision statement, accreditation status determine the extent to which masters programs are integrating social, environmental and cross-cutting sustainability courses.

1.4 Research Questions

The study sought to answer the following research questions.

1. To what extent are relevant environmental sustainability issues integrated in graduate business programs?
2. To what magnitude are relevant social sustainability issues integrated in graduate business programs?
3. To what level are relevant cross-cutting sustainability issues integrated in graduate business programs?
4. Do the explanatory factors of size, status of the university, gender of the dean, mission/vision statement, accreditation status determine the extent to which masters programs are integrating environmental, social and cross-cutting sustainability?

1.5 Scope of the Study

A cross sectional research design was adopted for this study. The approved masters programs were derived from the Commission of University Education website. 77 business programs were identified in 43 Kenyan Universities. The universities identified were a mixture of private and public universities. The study focused on a cross-sectional review of the year 2020-2021 program course units of masters programs that are business oriented. Data was collected in the months of March 2021- April 2021. The study reviewed the program courses to identify the presence of environmental, social and cross-cutting sustainability themes.

1.6 Significance of the Study

1.6.1 Government policy makers

Central governments are responsible in providing an enabling environment for encouraging initiatives such as ESD. This research will provide insight to policymakers on ESD practice: whether it is being taught, where it is being taught and the extent of such integration. These insights could influence the revision of future policies to more accurately reflect on what needs to be done to enhance ESD integration in business programs. It could also aid policymakers in making decisions about resources such as where to allocate funds to training of education providers in higher education institutions in areas where level of integration is low.

1.6.2 Educational Institutions

Carrying out sustainability assessments indicate the level of integration of various aspects of sustainability. Educational institutions will benefit from the study since it will highlight what areas need improvement. Further it may act as a guide for future curriculum revisions in identifying what areas need to be included.

1.6.3 Lecturers

It will aid in professional development of lecturers highlighting how they can incorporate ESD in the business courses. It will also act as an agent of change towards sustainability integration where low levels of integration are identified. Institutions that provide training to lecturers may also find the research useful in identifying areas where lecturers may need further training in areas of ESD integration that are still lagging behind in the courses that they are teaching.

1.6.4 Students

Better understanding of level of integration could enhance students' coursework experience thus preparing them to be future citizens who can better address sustainability challenges by providing them with the skills and knowledge to better address the complex sustainability issues that they may face in their places of work in the future.

1.6.5 Business Schools

Membership to accrediting bodies comes at high cost and before universities invest in this, they should be clear on the benefits that they will accrue. An analysis on the impact of integration of sustainability in the curriculum by business schools that are members of accreditation bodies may guide business schools on whether or not they should join such initiatives to enhance the sustainability agenda.

1.6.6 Accreditation bodies

Accreditation bodies have various standards that guide them. By reviewing standards of international bodies, they may act as a guide to local accreditation bodies on how they can enhance sustainability education in higher education institutions to match those of international bodies.

1.6.7 Future Researchers

In terms of methodical contribution, this research utilized STAUNCH assessment tool for carrying out sustainability assessment of graduate business programs. Given that the research was exploratory in nature, this may act as a guide to future researchers on how this instrument can be utilized to build a more robust literature on sustainability integration in other graduate and undergraduate programs. As highlighted by Etse and Ingley (2016) research in developing countries on sustainability integration is scanty, this research aimed at increasing literature available on sustainability integration in developing countries. Researchers may also find the results of this study useful for further analysis on effective teaching pedagogies that have been utilized in ESD teaching.

1.7 Organization of the proposal

The research proposal encompassed of five chapters. Chapter two, three, four and five answer the research objectives highlighted in chapter one. Chapter two provided the literature review on how the subject matter is discussed by prior authors and hypothesis formulation. Chapter three dealt with the research methodology and methods the researcher utilized for the study. Chapter four dealt with data analysis and interpretation. Chapter five comprised of general discussions, conclusions and recommendations that the research arrived at.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter provides insight into the previous studies in relation to sustainability content integration in the curriculum and examines factors that have been seen to have an influence on sustainability integration in business programs this includes membership to accreditation bodies that are sustainability oriented, size of the university, status of the university, gender of the dean of the business school and mission/vision statement of the University. The chapter presents theoretical literature review with theories that underpin the study and subsequently presents the empirical literature, summary of the literature, the research gap and the conceptual framework.

2.2 Theoretical framework

The stakeholder theory is a dominant theory in advocating for the inclusion of sustainability in institutions of higher learning. It argues that businesses must take into consideration the needs of society and environment as a whole and not only those of the shareholder (Chatelain-Ponroy & Morin-Delerm, 2016). The institutional theory on the other hand is the theory that explains the forces or pressures that push the business schools to integrate sustainability into their curriculum as a result of being members of accrediting bodies and other field level organizations that advocate for sustainability (Rasche & Gilbert, 2014).

2.2.1 A shift from shareholder theory to stakeholder theory

Friedman advanced the shareholder theory that advocated that the sole responsibility of the firm was to increase shareholder profit and obey the law (Friedman, 1962). Business education has traditionally been viewed to be inclined to the shareholder theory advocated by Friedman (Barber et al., 2014; Üçok Hughes et al., 2018). Business schools that focus on the shareholder theory as the basis of their curriculum will thus have more units that are focused on maximizing shareholder value very little on CSR, ethics and sustainability (Barber et al., 2014; Perera & Hewege, 2016). As a result of societal push however, business education has been seen to shift from shareholder to the stakeholder theory (Hart et al., 2015). Ansolf in his work on corporate strategy in 1965 was deemed as the first to use the term stakeholder theory (Fernando and Lawrence, 2014). There is evidence that the term "stakeholder", the basis of the stakeholder

theory, was used way back in 1947 (Fernando and Lawrence, 2014). However, it was mostly utilized after the mid-1980s by scholars such as Freeman (Fernando & Lawrence, 2014; Freeman, 2010).

The stakeholder theory advocates that businesses should take into account various relations or various stakeholders involved with the firm (Chatelain-Ponroy & Morin-Delerm, 2016). A stakeholder of a firm is any group or individual who can affect or is affected by the achievement of the firms' objectives (Freeman, 2010). The business school stakeholders include employees, the government, competitors, suppliers, consumers, the society etc. (Üçok Hughes et al., 2018). As a response to criticism from some of the stakeholders in society in the period of 1960s and 1970s, business schools began to add ethics and CSR into curriculum and more recently in the 2000s they have also added sustainability (Sharma & Hart, 2014; Üçok Hughes et al., 2018). The courses are concerned with the effects of the companies action on society and the environment (Hart et al., 2015; Üçok Hughes et al., 2018). Business schools thus added the courses on sustainability to meet the needs of the stakeholders in the society that they operate. The study thus seeks to determine which is the dominant theory that governs business school curriculum is it the shareholder theory or the stakeholder theory. Where business curriculum shall integrate environmental, social or cross-cutting sustainability to a great extent then it shall be deemed to be driven by the stakeholder theory. Where business curriculum has not integrated environmental, social and cross-cutting sustainability to a small extent then it shall be deemed to be driven by the shareholder theory.

2.2.2 Institutional theory

In addition to the stakeholder theory, business schools are forced to integrate sustainability into their curriculum due to pressures from field level organizations such as accrediting bodies, governments and other organizations that are focused on sustainability (Cooper et al., 2014; Hart et al., 2015). This force can be explained by the institutional theory (Cooper et al., 2014). Institutions are defined as the guidelines, standards and beliefs that describe reality for the organization (Hoffman, 2000). The institutional theory highlights that organizations need legitimacy to operate. This legitimacy is obtained by conforming to various expectations of the society (Barber et al., 2014).

Business schools like any other organizations do not operate on their own. They operate within a field that has various players ranging from the government, accreditation bodes, student organizations, professional networks etc. all of which have as a common subject sustainable business education (Cooper et al., 2014; Rasche & Gilbert, 2014; Teixeira & Maccari, 2018). Currently business schools are facing significant pressure in the management environment to adopt sustainability in their curriculum (Rasche & Gilbert, 2014). The isomorphism have been viewed as pressures that drive the business schools to include sustainability in their operations, strategy and curriculum (Chedrawi et al., 2019; Cooper et al., 2014; Rasche & Gilbert, 2014; Teixeira & Maccari, 2018). Isomorphism is an obliging process that forces one entity in a population to homogeneity when they face the same set of conditions or they are operating in the same environment (Dimaggio & Powell, 1983; Rasche & Gilbert, 2014). The authors also noted that organizations are driven by three isomorphism coercive, mimetic and normative isomorphism.

Coercive isomorphism refers to change that results from both formal and informal pressures exerted on entities by other entities upon which they are reliant on and by cultural expectations in the society within which entity operates in (Dimaggio & Powell, 1983). Associations that business schools belong to such as accreditation bodies and other initiatives do exert coercive pressure and this leads business schools to incorporate sustainability in their curriculum (Doherty et al., 2015; Teixeira & Maccari, 2018). Mimetic Isomorphism refers to change that results from uncertainty. In this case organizations imitate other organizations that are deemed to be successful in the environment that they are in (Dimaggio & Powell, 1983; Rasche & Gilbert, 2014). Organizations do this so as not to risk losing their legitimacy (Cooper et al., 2014). Rasche and Gilbert (2014) noted that responsible management education that seeks to include sustainability is still a vague concept and thus business schools imitate what market leaders have already adopted in their curriculums and organization. Business schools such as London Business School were among the pioneer business schools to join initiatives such as PRME that are sustainability oriented. Since the school is viewed among the best, other business schools will not want to be left behind and they will seek to join such initiatives to learn from the best(Rasche & Gilbert, 2014). Normative Isomorphism refers to organizational change that results from professionalization. It occurs when members of an occupation determine what constitutes the

conduct of their profession and also formal education systems (Dimaggio & Powell, 1983). Business schools are pressured in a multiplicity of ways to include ethics and sustainability (Rasche & Gilbert, 2014). This is shown in various ways for example in initiatives such as Net Impact where students have advocated for more inclusion of sustainability in the university curriculum (Net Impact, 2019). Further professional organizations such as PRME have defined what constitutes acceptable behavior in relation to sustainability (Escudero et al., 2010). Where a positive relationship between extent of integration of sustainability and being members of accreditation bodies, then this shall be deemed to have been driven by the pressures or isomorphism based on the institutional theory. Should the study reveal that the accreditation status of the university has not impacted on the integration of sustainability, it will show that the isomorphism or pressures have not had an impact on the sustainability integration.

2.3 Sustainable Business Education

Sustainability has become a significant issue in the global agenda, however few business schools have developed competencies in the area of sustainable development and many times the schools are not up-to-date trends of sustainability (Beehner, 2018). Despite the fact that teaching of sustainability has been seen as a difficult task as emphasized by Orlovic Lovren et al. (2020), in the Kenyan context, education is seen as the key way in which sustainability practices are inculcated in the society as highlighted by various policies that have been put in place (Government of Kenya, 2013, 2018; KNATCOM, 2019; NEMA, 2012). Although there are a substantial number of initiatives effecting sustainability, there is an indication that sustainable development is not yet fully integrated in universities (Leal Filho & Pallant, 2019). This is due to some challenges universities face such as lack of solid support from administrators, lack of interest, lack of incentives, lack of training on sustainability and lack of financial support(Doherty et al., 2015; Leal Filho & Pallant, 2019). Despite these challenges it is of importance that business schools integrate sustainability in the business curricula to ensure the development of leaders possessing skills necessary to understand the relationship between sustainability and good organizational strategy (Beehner, 2018). It will also provide the students with a place of exposure thereby producing cognitive and affective change in the students in relation to sustainability (Setó-Pamies & Papaoikonomou, 2016). Further sustainable development matters have a prime position in business strategies thus it is becoming essential for

future business professionals to be trained in this area (Gomes et al., 2020). Focusing specifically on accounting which is part of business studies, Creel and Paz (2018) noted that it is important that accounting faculty integrate sustainability in their teaching since the current trends are such that companies prepare sustainability reports, accounting students should thus be conversant with environment, social and economic measures such as Triple bottom line approaches so that they are able to prepare sustainability reports when they start working. For education to be holistic it should include economic, social and environmental dimensions (Gomes et al., 2020).

Although studies have shown that there is some level of integration of sustainability in curricula, the level of integration has been seen as irregular and slow (Gomes et al., 2020; Palma et al., 2011). In a study carried out in Brazil of the 40 universities that offer business administration courses, only 13 (33%) had a course related to sustainability (Palma et al., 2011). In a study that reviewed 188 global accounting masters, the research showed that the presence of sustainability related courses such as ethics and CSR is underdeveloped and is not sufficient to meet the demands of society(Jorge et al., 2015).

2.3.1 Environmental Sustainability in education

Environmental sustainability can be defined as a condition of balance that allows human beings to meet its needs without exceeding the capacity of its supporting ecosystems to continue to regenerate the services necessary to meet those needs without diminishing biological diversity (Longoni & Cagliano, 2015; Morelli, 2011). Environmental sustainability educational content includes but not limited to courses such us climate change, bio-diversity, environmental health and safety, environmental reporting and environmental stewardship (Akeel et al., 2019). Various national policies emphasis the importance of education on environmental sustainability. One of the adaption and mitigations actions set by the Government of Kenya in its NCCAP 2018-2022 action plan is integrating climate change in the curriculum (Government of Kenya, 2018). The GESIP also targeted that by 2019, green economy shall be mainstreamed in all forms of education and training (Government of Kenya, 2016).

There is evidence of integration of environmental sustainability in educational content. A review of purchasing and supplies diploma in Ghana showed that of all sustainability content only 24.6% related to environmental sustainability. A review of marketing courses in Spanish

universities showed that environmental content was the least covered (Larrán et al., 2014). Creel and Paz (2018) noted that one of the areas that can be taught is environmental auditing since it is one of the career paths that business students can pursue given that in recent times environmental reports are some of the reports prepared by companies. Owusu et al. (2017) noted that environmental literacy among business students is low and there is need to integrate environmental sustainability in curriculum of business students. The authors also noted that business schools did not meet the students, industry and societies needs for environmental literacy. In a case study of two universities the faculty of business environmental content was 2% compared to that of the faculty of environment that was 54% (Lozano & Young, 2013a).

In Kenya 42% of the country's GDP is reliant on natural resources (Government of Kenya, 2016). Kenya experiences a variety of environmental challenges in the form of droughts, natural disasters such as floods, severe water shortages, climatic change and variability, loss of bio-diversity and poor waste-management systems (Government of Kenya, 2013). It is thus imperative that business students should be adequately prepared to meet societal needs for environmental sustainability. This can be done by integrating environmental content in business programs. This study sought to investigate whether environmental content has been integrated in Kenyan business programs.

2.3.2 Social Sustainability in education

Social sustainability refers to actions of formal and informal processes, structures and systems that ensure the preservation and creation of skills as well as the capabilities of future generations by promoting healthy and livable communities (Longoni & Cagliano, 2015). It is seen as a concept that identifies satisfaction of basic needs, ensuring equitable distribution of opportunities in development, education, employment, equity, human rights, gender equality, poverty, social justice, social cohesion, health, safety and well-being (Edvardsson Björnberg et al., 2015). Education in social sustainability takes on various themes such as bribery, corruption, culture, religion, equity, justice, health and safety (Akeel et al., 2019). Social sustainability has also been targeted to be mainstreamed in the university education as part of the global citizenship education in the Kenyan context (KNATCOM, 2019). Aspects targeted to be mainstreamed in the curriculum include peace and conflict, human rights, cultural diversity and inclusivity

(KNATCOM, 2019). There have been various reviews of higher education programs that have shown the presence of social sustainability issues (Etse & Ingley, 2016; Jorge et al., 2015). The extent of integration varied based on the course and the geographical location (Etse & Ingley, 2016; Jorge et al., 2015). A review of the higher diploma of purchasing and supplies in Ghana showed that social sustainability issues such as social justice, corporate social responsibility were the most prevalent with 52.6% of all the sustainability related course units (Etse & Ingley, 2016). A review of top accounting and auditing masters programs on the other hand did not offer a very optimistic outlook on extent of social sustainability integration with only half of the institutions offering a social sustainability related stand-alone course such as CSR (Jorge et al., 2015). A review of marketing courses showed that CSR education is still underdeveloped to meet the needs of the society (Larrán et al., 2014). In a case study of two universities the faculty of business social sustainability content was at 19% compared to that of the faculty of environment that was 7% (Lozano & Young, 2013).

Kenya faces a myriad of societal problems such as ethnic hostility, gender disparity, human rights abuses, increased insecurity, despoiled lifestyles, erosion of cultural values and morals, bigotry towards cultural diversity (Government of Kenya, 2013). For curriculum to be relevant it should include social sustainability issues. This argument stimulates the second research question of checking whether business programs have integrated social sustainability given the targets set by the government of Kenya of relevant education in relation to social issues.

2.3.3 Cross-cutting sustainability themes in education

These are themes that integrate the social, environmental and economic sustainability. (Akeel et al., 2019; Lozano & Young, 2013a). From an educational perspective the curriculum content includes themes that are multi-dimension such as system thinking, responsibility, sustainable development, ethics, philosophy and governance (Akeel et al., 2019; Lozano et al., 2019). Various studies have shown that cross-cutting sustainability themes have been integrated into the curriculum. Jorge et al. (2015) noted that from 188 accounting masters programs from leading universities, 27% had a course related to ethics a cross-cutting sustainability theme. Akeel et al. (2019) reviewed the engineering programs in Nigeria and noted that the cross-cutting themes that were most prevalent were communication, reporting, ethics and philosophy. The authors also

noted that cross-cutting themes comprised of 13.7% of the sustainability content. Business schools have been seen to lag behind in integrating cross-cutting sustainability themes (Lozano & Young, 2013a). In a case study of two universities, only 1% of the courses in the faculty of business had cross-cutting themes compared to 24% of the courses offered in the faculty of environment (Lozano & Young, 2013a).

Kenya faces some cross-cutting sustainability challenges such as poor governance, corporate irresponsibility, lack of accountability and poor enforcement of policies and regulations which hinder economic growth and the attainment of the country's optimal performance (Government of Kenya, 2013). Hence there is need for the educational programs to offer content that is relevant to Kenya's needs. Further there has been evidence of a lag in integrating cross-cutting sustainability issues in the educational programs. As per the Global Competitiveness Index 2019 that looked at critical thinking in teaching, Kenya is ranked position 75 out of 141 this shows there is need to integrate critical thinking in education as part of the cross-cutting sustainability themes (Schwab, 2019). There is therefore a need investigate whether critical thinking and other cross-cutting themes have been integrated into the curriculum of higher education institutions.

2.4 Determinant factors on extent of integration of sustainability in the curriculum

2.4.1 Size of the University and sustainability

Larrán et al. (2017) noted that not many studies have looked into the impact of size of the University and inclusion of sustainable development content. Studies have shown that larger universities tend to integrate sustainability content more than smaller universities. Larrán et al. (2017) reviewed top ranked MBA programs and noted that large universities are more likely to integrate sustainability content. A review of websites of Canadian universities showed that middle and large universities were 6.8 times more likely to have a sustainability plan compared to smaller universities because of resources available and amount of funding(Amey et al., 2020).

Jorge and Peña (2014) on the other hand noted that size is not a significant determinant of integration of sustainability. This findings were confirmed by Jorge et al. (2015) who noted that size of the university on an overall context did not influence sustainability initiatives. Based on

this the research sought to determine whether the size of the university has a significant impact on environmental, social and cross-cutting sustainability in the Kenyan context this acts as the basis of the first hypothesis :

H_{o1}: The university size is not a significant determinant of environmental, social and cross-cutting sustainability integration

2.4.2 Status of the University and sustainability

Research carried out on status of University and relevant sustainable development content in the business curriculum has shown that private universities tend to offer more courses on sustainable development compared to public universities. In a research carried out amongst Spanish Universities, Larrán et al. (2014) showed that private universities offered courses related to sustainable development since the education mission is based on teaching ethics and morals all aimed at improving the society. This is confirmed by a finding by Son-Turan and Lambrechts (2019) who noted that private universities in Turkey were more likely to engage in sustainability activities due to their association with companies that are sustainability oriented. Private universities were also shown to have more sustainable development content as a source of competitive advantage to attract more students (Hart et al., 2015; Larrán et al., 2017). A research carried out on top MBA programs showed that private universities had more courses on sustainable development, due to availability of more funding for new academic programs that integrate sustainable development, Ethics and CSR (Hart et al., 2015). In a review of Latin American institutions Blanco-Portela et al. (2018) noted that one of the drivers of sustainable development integration in universities was status of the university where the authors noted that private universities had higher levels of integration since they have less bureaucracy and the allocation of resources is less restricted. However in a research carried out (Jorge et al., 2015) the study had a contrary opinion where the authors noted that status of the university had no impact on the extent of sustainability integration. Based on this the research sought to determine whether the status of the university has a significant impact on environmental, social and cross-cutting sustainability in the Kenyan context this acts as the basis of the second hypothesis :

Ho_2: There is university status is a not a significant determinant on environmental, social and cross-cutting sustainability integration.

2.4.3 Gender of dean and sustainability

Gender has featured severally in research relating to ethics and sustainability. There is a belief that females are more perceptive to ethical and social issues (Jorge et al., 2015). A study carried out on students in a university in the United Arab Emirates showed that females were more knowledgeable on sustainable development compared to the male counterparts (Al-Naqbi & Alshannag, 2018). A study carried out in a University in USA of 500 students showed that females were more likely to engage in sustainable behavior compared to male students (Heeren et al., 2016). The study also showed the females had a higher sustainability attitude and subjective norms compared to the male student. In a study carried out on attitudes towards climate change one of the environmental sustainability areas, 80% of the female respondents stated that they were very somewhat worried about climate change compared to 51% of the male respondents (Wachholz et al., 2014). In a study carried out on masters students on sustainability orientation, the study showed that women are more ethics, responsibility and sustainability oriented compared to the male students (Delgado et al., 2019). However in a study carried out by (Jorge et al., 2015), the authors noted that the gender of the dean is not a significant determinant on the extent of sustainability integration. Based on this the research sought to determine whether the gender of the dean of the university business school has a significant impact on environmental, social and cross-cutting sustainability in the Kenyan context this acts as the basis of the third hypothesis :

H_{o3}: There gender of the University Business School's Dean is a not significant determinant on environmental, social and cross-cutting sustainability integration.

2.4.4 Mission and vision statement of the university and sustainability

The mission statement is seen as a strategic tool for organizations and it reflects the institutions reality. It provides direction and purpose and if sustainability matters for a university then its mission statement should focus on social, economic and environmental aspects (Deus et al., 2016). In a review of Brazilian universities mission statement, a study carried out by Deus et al. (2016) noted that 80% of the Brazilian universities had sustainability aspects integrated into their mission statement. However, the authors noted that there is need to carry out more study to determine whether having sustainable statements in the mission statement translates to actual

sustainability integration. This study sought to bridge this gap by assessing whether universities with mission statements that are sustainability oriented does have an impact on sustainability in their curriculum in a Kenyan context.

The development of sustainability requires genuine support of organization leaders which is evidenced and written into the mission statement (Narayan, 2014). The institutional framework of the university which includes the university's mission and vision shows the commitment of the university leadership to integrate sustainability into the university operations one of them being teaching sustainability (Paletta & Bonoli, 2019). A study carried out in a university in Spain showed that there is a direct link between education for sustainable development and mission statement of the University (Albareda-Tiana et al., 2018). On the other hand Lee et al.(2013) noted that mission statement is not the main determinant in determining the extent of sustainability integration rather it is influenced by other factors such as purpose of establishment, finance structure, size, geographic location, reward and incentive system and culture. Velazquez et al. (2006) noted that although only 8% of universities had a sustainability oriented mission statement, 57% had integrated sustainability in their strategic documents implying that sustainability integration in the mission statement is not a determinant of sustainability integration. Based on this the research sought to determine whether the mission or vision statement that the university has a significant impact on environmental, social and cross-cutting sustainability in the Kenyan context this acts as the basis of the fourth hypothesis :

Ho_4: The University's vision/mission statement is not a significant determinant on its environmental, social and cross-cutting sustainability integration.

2.4.5 Accreditation and sustainability

Accreditation can be defined as the process by which a governmental, non-governmental or private entity appraises the quality of a higher education institution either as a whole or specific programs in order to officially identify it as having met certain predetermined criteria or standards (Hernandez-Diaz et al., 2020). Research has shown that accreditation bodies that incorporate sustainability indicators as one of their standards contribute to universities not only reaching quality education but also ensuring that sustainability is embedded in the educational institution (Hernandez-Diaz et al., 2020). This findings agree with those of a review of

engineering accreditation bodies that found that the accreditation bodies are drivers of curriculum renewal towards sustainability in USA and Australia (Byrne et al., 2013).

A review of the standards of business school accreditation bodies AACSB and AABS highlighted specific points in relation to sustainability content in the curriculum. Standard 9 of the latest AACSB standard in the section on curriculum content, the standard explicitly states the necessity of sustainability content that should be part of the general skill area and general knowledge areas in the curriculum. The two points are "Ethical understanding and reasoning (able to identify ethical issues and address the issues in a socially responsible manner" (AACSB, 2013, p. 35) and "Social responsibility, including sustainability, diversity and ethical behavior and approaches to management" (AACSB, 2013, p. 35). In the AABS Standard 5 on students, the standard highlights the importance of inculcating sustainability knowledge to students (AABS, 2019). "Schools are urged to develop in students, values such as diligence, integrity, service to society, respect and so on, which lead to desirable ethical and responsible behaviors in their working lives." (AABS, 2019, p. 16). A review of the accreditation standards for the Commission for University Education in Kenya showed that only social responsibility is explicitly mentioned as a requirement of accreditation (CUE, 2020). "Prepare the individual to take a significant responsibility in society ."(CUE, 2020, p. 9).

Various studies have been carried out to determine the impact of initiatives that are sustainability oriented have on the integration of sustainability content. Doherty et al., (2015) carried out a longitudinal study on six business schools and noted that accrediting bodies were a driving coercive force towards integrating sustainability in their curriculum. In the same study a University that was seeking membership in one the initiatives noted that having a sustainable development agenda was one of the issues that they had to deal with before joining the initiative. Doh and Tashman (2014) carried out a survey of business faculty and noted that one of the ways that integration of sustainable development can be speeded up is through accreditation bodies that would compel the business schools to have sustainability, ethics and responsibility as one of the learning outcomes. Rundle-Thiele and Wymer (2010) noted that business schools that were accredited by AASCB and EQUIS offered more courses on sustainability compared to the non-accredited ones. Similarly Jorge et al. (2015) in a sample of 121 business schools offering accounting courses compared business accredited by AASCB versus those accredited by other

accredited bodies and noted that those accredited by AASCB were more likely to have units on sustainability compared to other accrediting bodies due to the fact that AASCB has more emphasis on sustainability content in its standard. This findings also agree with those of a research carried out by Larrán et al.(2017) who noted that schools accredited by AASCB offer more CSR and ethics electives compared to those belonging to other accrediting bodies.

Studies have shown that membership to accrediting bodies that are sustainability oriented enhances the university ranking thus the mimetic forces lead to universities wanting to associate with industry leaders to enhance their sustainability integration in order to improve their ranking, the coercive force of the accrediting bodies pushes universities to integrate sustainability and the normative pressure of professionalization by accrediting bodies all indicate that universities that are members of international accrediting bodies are likely to integrate sustainability into the curriculum compared to those that are non-accredited (Chedrawi et al., 2019; Cooper et al., 2014; Doh & Tashman, 2014). However in a research carried out by Jorge et al. (2015), the authors noted that accreditation is not a significant determinant of sustainability integration. Based on this the research sought to determine if accreditation has a significant impact on environmental, social and cross-cutting sustainability in the Kenyan context. This acts as the basis of the fifth hypothesis:

H_{o5} The University's accreditation status is not a significant determinant on environmental, social and cross-cutting sustainability integration.

2.5 Research Gap and summary of literature

The Table 2.1 provides a summary of literature reviewed with their main findings, knowledge gaps identified in the studies reviewed and the focus of the current study

Table 2. 1 Research gap and summary of literature

Author/ year	Objective of study	Theory	Main findings and conclusion	Knowledge gaps identified	Focus of current study
(Rasche & Gilbert, 2014)	To show whether universities decouple due to institutional pressures leading to sustainability integration.	Institutional theory	Business schools are exposed to coercive, mimetic and normative pressures and under certain situations they decouple their formal structure to meet these pressures leading to greater integration of sustainability education.	The study was theoretical. It needs empirical data to support it. Empirical data could show how these pressures affect organization procedures such as the curriculum design.	The study using empirical analysis checked on whether forces exerted by accreditation bodies' impact on the curriculum of business schools by making the curriculum more sustainability oriented.
(Etse & Ingley, 2016)	To assess whether the higher national diploma of purchasing and supply management in Ghana is sustainability oriented.	N/a	Low sustainability presence in the curriculum. Most of the sustainability topics were on social justice while economic sustainability is the least featured.	Need for more research into other higher education programs to determine the extent to which the sustainability agenda is integrated. Scope was narrow	The study examined a wider range of programs apart from purchasing and supplies to ascertain the extent of sustainability integration

Author/ year	Objective of study	Theory	Main findings and conclusion	Knowledge gaps identified	Focus of current study
				as it only looked into one program	
(Barber et al., 2014)	To show how sustainable development can be integrated at a business school despite barriers by collaboration with external and internal stakeholders.	Institutional theory	Study carried out a case study of one university and from this, the study noted that by looking at education of faculty, industry engagement with stakeholders and research, it is possible that sustainability can become integrated in the structure of business schools.	Universities vary in how they approach sustainability. Some universities focus on ensuring their campus are ecologically efficient, others emphasize on curriculum while others concentrate on their impact in society. It is thus useful to determine how universities vary in one aspect such as the curriculum.	The study expanded the scope by reviewing the content of several business programs as compared to a case study. The study sought to ascertain how different universities have integrated sustainability in their programs.
(Akeel et al., 2019)	To carry out an assessment of the sustainability content of the engineering programs in Nigerian universities	N/a	By using the STAUNCH sustainability assessment tool the study highlighted that the engineering curriculum have low sustainability content. Environmental sustainability concepts were most cited while social sustainability themes were least sited.	Study focused on a non-business related field. Business related programs might reveal different findings in relation to the sustainability content.	Study focused on reviewing business programs to determine the sustainability content. In addition due to geographical differences, focus of sustainability in Kenya might be different from that in Nigeria.

Author/ year	Objective of study	Theory	Main findings and conclusion	Knowledge gaps identified	Focus of current study
(GUNI et al., 2011)	To highlight the role of Higher Education institutions in promoting sustainable development	N/a	Many universities have sustainable development structures. The study highlighted areas where the structures are weak in order to provide universities with a guide on how they can they can improve.	Study highlighted the need to carry out sustainability assessments which will help identify priorities in sustainable development, review their sustainability efforts and communicate to stakeholders.	The study aimed at carrying out a sustainability assessment of the content of business masters programs in Kenya. The study showed the extent of integration of sustainability and highlighted possible areas of improvement.
(Nicholls et al., 2013)	To provide an overview of the implementation of ethics, CSR and sustainability in marketing programs of AACSB accredited business schools	Blooms taxonomy	By looking at marketing programs, ethics had the highest level of integration while sustainability had the lowest. This is due to the force of the accrediting body AACSB that advocates for the integration of ethics.	The study highlighted the need to identify differences in integration and assessment of various types of institutions such as public, private, religious affiliation etc. The study focused on AACSB accredited bodies there is need to examine the impact of other accrediting	The study investigated the differences in sustainability integration of various institutions such as public, private, large, small, accredited non accredited etc. Further the current study investigated other accrediting bodies apart from AACSB such as AABS to determine if they affect sustainability integration.

Author/ year	Objective of study	Theory	Main findings and conclusion	Knowledge gaps identified	Focus of current study
				bodies	The study also widened the scope and included other programs apart from marketing.
(Jorge et al., 2015)	To analyze the influence of diverse factors on the extent to which accounting programs incorporate ethics and CSR courses	Institutional theory	The extent of integration of CSR and Ethics in top ranked accounting and auditing masters is low. The extent to which ethics and CSR is integrated is partially explained by size of the institution and geographical location.	The research focused on accounting and auditing masters which is a narrow scope of business related programs. The study did not examine impact of variables such as gender of dean of business school and mission statement of the business school.	This study examined the influence of diverse factors on the extent of integration of not only CSR and ethics but also other sustainability themes such as environment, social justice. This study examined wider range of business programs not only accounting and auditing masters but also other masters programs such as finance, business administration. The study also assessed the impact of gender of dean and mission statement on the extent of integration. These

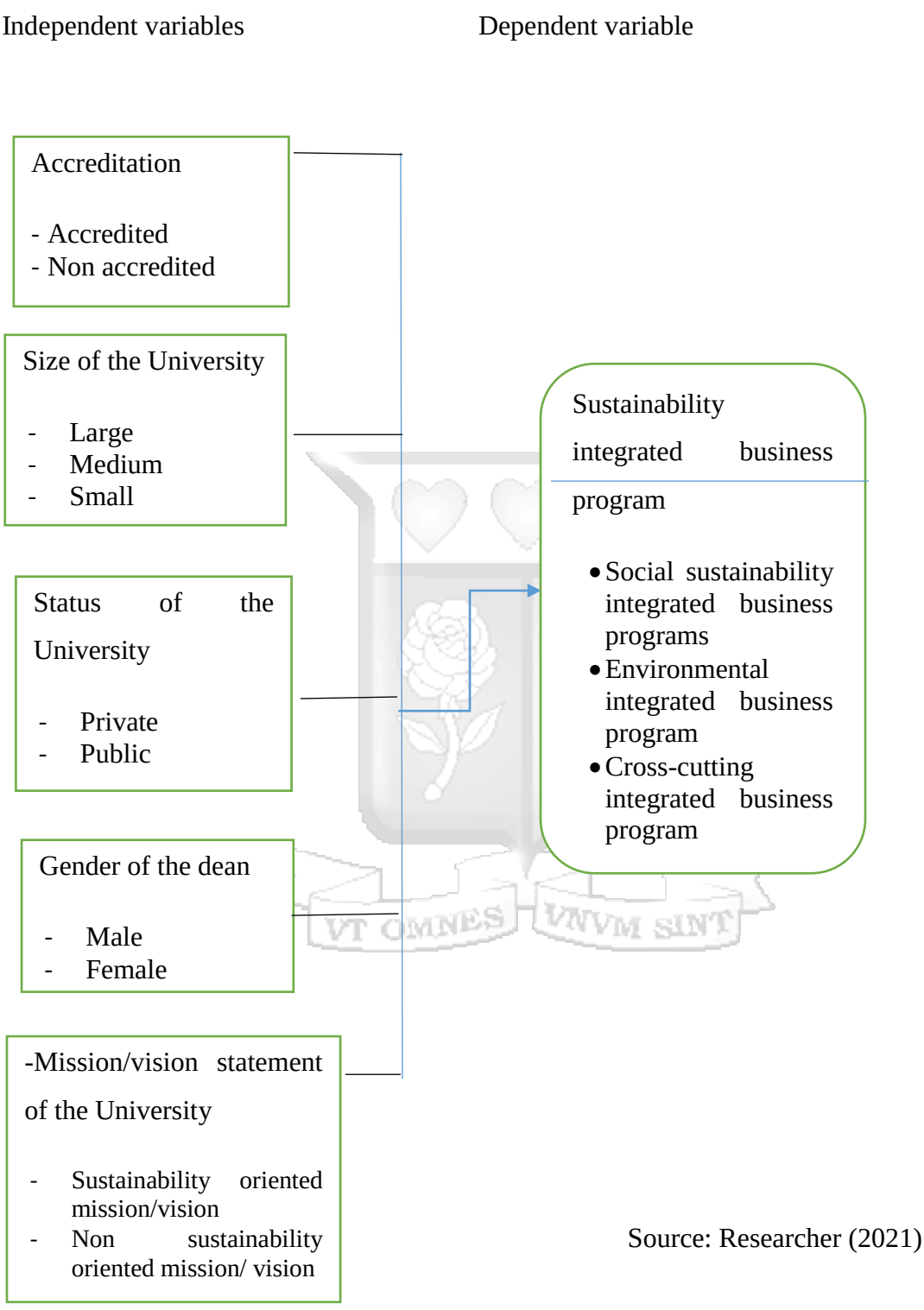
Author/ year	Objective of study	Theory	Main findings and conclusion	Knowledge gaps identified	Focus of current study
					variables were not part of the study.
(Larrán et al., 2017)	To examine integration of ethics and CSR in top ranked MBA curriculum. To examine the impact of variables such as size, status, cultural influence and accreditation on the integration of Ethics and CSR. To examine whether there has been a change in the last 10 years on the extent of integration.	Shareholder theory	Ethics and CSR are present as elective stand-alone courses. Their presence can be explained by variables of size, status, accreditation and cultural influence. There has not been a change on the extent of integration of CSR and Ethics in the last 10 years for top ranked MBAs implying that the business schools still hold on to the stakeholder approach.	The study only examined MBA program despite there being other business related programs. The study examined only two sustainability related themes of ethics and CSR even though there are more sustainability related themes.	In addition to CSR and ethics the study used an expert derived list of sustainability related themes to examine extent of sustainability integration. The study also widened the scope by looking at other business related masters programs in addition to MBA.
(Cooper et al., 2014)	Using a case study approach, the paper examines the role that accreditation has in cultivating organizational change leading to greater stakeholder engagement in CSR and sustainability issues.	Neo-institutional theory	Accreditation bodies have incorporated ethics, CSR and ethics in their operations thus they may foster organizational change in universities to incorporate these themes.	The findings are from an individual university case study and thus there is need to examine whether accreditation fosters change in a larger pool of business schools and universities.	By examining a wide range of business programs of several universities the research highlighted whether accreditation does in fact impact on the extent of integration of sustainability related themes.
(Gomes et al., 2020)	To establish the extent of integration of	Stakeholder theory	There is still a challenge of integrating sustainable	The study only looked at Portugal	The study focused on examining

Author/ year	Objective of study	Theory	Main findings and conclusion	Knowledge gaps identified	Focus of current study
	sustainable development in business science degrees in Portugal		development in higher education institutions with the study showing only 48.5% of the degrees having integrated sustainability.	thus it can be used for comparative analysis with other countries on how sustainability has been integrated into business related courses. The study was descriptive and lacked analytical analysis	sustainability integration in the Kenyan higher education institutions. It highlighted whether the trend of low level of integration of sustainable development experienced in Portugal is also experienced in Kenya The current study in addition to a descriptive analysis, also carried out an analytical analysis of factors that may be influencing extent of sustainability integration.

2.6 Conceptual framework

In this study, integration of sustainability and establishment of the determinant factors of environmental, social and cross-cutting sustainability content in the business programs was the main focus. The first three objectives of the study sought to determine extent of integration of environmental, social and cross-cutting sustainability in the business programs. This then formed the basis of the dependent variable. The fourth objective of the study then accessed the impact of accreditation, size, status, and gender of dean, mission/vision statement (the independent variables) on the level of integration of environmental, social and cross-cutting content in the business program.

Figure 2. 1 Conceptual Framework



Source: Researcher (2021)

2.7.1 Operationalization of study variables

Table 2. 2: Operationalization of Study Variables

Variable	**Indicator**	**Measure**	**Supporting literature**
Sustainability integrated business program (Environmental, Social and cross-cutting sustainability) (Dependent variable)	Inclusion of environmental sustainability relevant themes	Likert scale 1- Not at all, 2- Small extent, 3- Moderate extent, 4- Great extent, 5- Very great extent.	(Larrán et al., 2014; Akeel et al., 2019; Lozano et al., 2019)
	Inclusion of social sustainability relevant themes	Likert scale 1- Not at all, 2- Small extent, 3- Moderate extent, 4- Great extent, 5- Very great extent.	(Larrán et al., 2014; Akeel et al., 2019; Lozano et al., 2019)
	Inclusion of cross-cutting sustainability themes	Likert scale 1- Not at all, 2- Small extent, 3- Moderate extent, 4- Great extent, 5- Very great extent.	(Larrán et al., 2014; Akeel et al., 2019; Lozano et al., 2019)
University Accreditation (independent variable)	• Accredited to an international body • non-accredited	Dichotomous variable 0 - non accredited universities 1- accredited university	(Jorge, Peña, et al., 2015)

University status (Independent variable)	Public universities Private universities	Dichotomous variable 1 – Public university 2- Private university	(Larrán et al., 2014, 2017)
University Size (Independent variable)	Large universities Medium universities Small universities	Large universities>10,000 Medium Universities >5,000<10,000 Small universities <5,000 Small universities were coded 1, medium universities were coded 2 and large universities were coded 3	(Larrán et al., 2017)
Gender of the dean (Independent variable)	• Male • Female	Dichotomous variable 0 – Dean was a woman 1- Dean was a man	(Jorge, Peña, et al., 2015)
Mission statement/ vision of the University (Independent variable)	• Mission/ vision statement included a sustainability related term • Mission/vision statement did not contain a sustainability oriented term	Dichotomous variable 0 – sustainability inclusive mission/ vision statement 1- Non sustainability inclusive mission/vision statement	(Deus et al., 2016)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter highlights the research philosophy and the research design that was adopted for the study. It highlights the study population and the sample size. It describes the data collection methods and procedures that were used and how data reliability and validity was ensured. It details how data was analyzed and finally gives ethical considerations in the study.

3.2 Research Philosophy

Research philosophy is the underlying belief held by a researcher on the way data for a particular study should be collected, analyzed and applied (Creswell, 2014).The research adopted a positivist research philosophy. This is premised on the fact that positivist approach is most frequently used for sustainability education research on competencies, knowledge and skills (Karrow & Howard, 2020). Based on this, the research philosophy was deemed appropriate for this study. It has been used in studies such as Akeel et al.(2019), Karrow and Howard (2020) to investigate extent of sustainability education integration. Creswell (2014) noted that the positivist approach is an approach where there is a need to identify and assess the causes that influence outcomes. Positivist research adopts a quantitative approach since the research seeks to determine the relationship among variables and pose them in terms of questions or hypothesis (Creswell, 2014). Quantitative research is an approach for testing objective theories by examining relationships among variables (Creswell, 2014). The variables are measured and subsequently analyzed with statistical procedures. In this case the research sought to determine whether the factors of size, status accreditation, gender of dean, mission/vision statement of university have an impact on sustainability integration in business programs. In positivist research, data and evidence shape knowledge obtained (Creswell, 2014).

3.3 Research Design

Descriptive research design was considered appropriate for this study. This research design has been utilized in previous similar studies such as (Larrán et al., 2014; Wu et al., 2010). The study was considered as descriptive since it aims to describe a phenomena in this case being environmental, social and cross-cutting sustainability in business curriculum. It also sought to

describe how various factors such as size, status, accreditation, gender of dean, mission/vision impact on sustainability integration.

3.4 Population of the study

The population of the study was all business related graduate programs offered by Kenyan university business schools. Secondary data was obtained on accredited graduate business programs in Kenya as per the Commission of University Education. For the purpose of determining the sample, graduate programs that contained the term business, commerce or finance were selected. A census survey design was adopted for the study. From the population, 81 business graduate programs were identified in 43 Universities. However, three courses in the list were duplicated. These were removed from the population leaving 78 programs. The study will target the final year business students or students who have recently finished the program. Therefore, 78 final year business students formed the target respondents. The unit of analysis for the study were the business programs. The choice of the final year students was justified since they have studied the program have information on whether the environmental, social and cross-cutting sustainability content was integrated in the business graduate program that they pursued.

Table 3.1 Graduate business related programs

University (Public/ Private)	**Number of universities**	**Number of courses**
Public	25	46
Private	18	32
Total	**43**	**78**

Sources: Commission of University Education Kenya (Commission for University Education, 2019). A detailed analysis of the population of the study is shown in Appendix V.

3.5 Data Collection Methods

Data for the study was collected from the University website or by emailing or physically visiting the university. Where data was collected physically or by email, consent was sort as outlined in Appendix III. The questionnaire acted as a guide to gain access to the data is highlighted in Appendix IV. For information that was not available online questionnaire was emailed or physically issued to business students. In relation to data on membership to

accreditation bodies that are sustainable development oriented, this information was confirmed by reviewing the website of the respective initiative.

3.6 Data Analysis and Presentation

Data collected was analyzed using descriptive statistics, inferential statistics, factor analysis and content analysis. Descriptive statistics such as percentages, frequencies, means and standard deviations were tabulated to reflect the attributes of the study constructs. The Statistical Package for the Social Sciences (SPSS) version 21 was utilized to aid in analysis of quantitative data. Findings were presented using tables.

Content analysis was utilized in analysis of qualitative data. Content analysis is an analytical technique that codes and categorizes qualitative data in order to analyze them quantitatively (Vourvachis & Woodward, 2015). Content analysis is a research technique for objective, systematic and quantitative description of manifest content of communication (Rundle-Thiele & Wymer, 2010).

To determine whether the impact of the various factors (Size, status, gender of dean, vision/ mission statement and accreditation) on environmental, social and cross-cutting sustainability is statistically significant further statistical tests were carried out. To determine the appropriate tests to utilize, tests for normality were carried out. For a 95% confidence level, the null hypothesis on normality of the data was contrasted. For the purpose of this study, Kolmogorov-Smirnov and Shapiro-Wilk tests for normality was utilized. If p values are less than 0.05, the null hypothesis was rejected at 95% confidence level (Larrán & Andrades, 2015).

As the data was not normally distributed, the research utilized non-parametric tests Mann Whitney and Kruskal-Wallis tests which are not based on a population with normal distribution. These tests have been utilized in previous similar studies such as (Jorge et al., 2015; Larrán et al., 2017). To determine the hypothesis (status of University, university accreditation, mission/vision and gender) on the difference of means of two independent samples, this research utilized the Mann Whitney tests. For the hypothesis of size of the University on the difference of means from three independent samples, this research utilized Kruskal-Wallis test.

Furthermore, regression models were conducted to determine the relationship between main explanatory factors and environmental, social and cross-cutting sustainability integration in business graduate programs in Kenya. The models included:

$Y = \beta 0 + \beta\ 1X1 + \beta\ 2X2 + \beta\ 3X3 + \beta\ 4X4 + \beta\ 5X5 + e$……Equation (i)

Where:

Y = Social sustainability integrated business programs

{β i; i=1, 2, 3} = The coefficients for the various independent variables

X1 = Accreditation

X2 = Size of University

X3 = Status of the University

X4 = Gender of the dean

X5 = Mission/vision statement of the University

$Y = \beta 0 + \beta\ 1X1 + \beta\ 2X2 + \beta\ 3X3 + \beta\ 4X4 + \beta\ 5X5 + e$……Equation (ii)

Where:

Y = Environmental sustainability integrated business programs

{β i; i=1, 2, 3} = The coefficients for the various independent variables

X1 = Accreditation

X2 = Size of University

X3 = Status of the University

X4 = Gender of the dean

X5 = Mission/vision statement of the University

$Y = \beta 0 + \beta\ 1X1 + \beta\ 2X2 + \beta\ 3X3 + \beta\ 4X4 + \beta\ 5X5 + e$……. Equation (iii)

Where:

Y = Cross-cutting sustainability integrated business programs

{β i; i=1, 2, 3} = The coefficients for the various independent variables

X1 = Accreditation

X2 = Size of University

X3 = Status of the University

X4 = Gender of the dean

X5 = Mission/vision statement of the University

3.7 Data Quality: Reliability and Validity Tests

The main tool to be utilized for analysis of the data was the questionnaire highlighted in Appendix IV. Tests for reliability were carried out to determine whether the items measuring the variables are reliable. To assess the internal consistency of the questionnaire, Cronbach test reliability was calculated. Where the reliability coefficient is greater than 0.7, the tool shall be deemed acceptable (Mohajan, 2017).

Validity is the extent to which an instrument measures what it asserts to measure (Mohajan, 2017). It looks at what the instrument measures and how well it measures it. To ensure validity of the data obtained, the research utilized the STAUNCH tool of assessment as the basis of coding and analyzing the data. The assessment tool was used to derive the section of the questionnaire that was utilized to determine the level of integration of sustainability in university programs. The tool has been developed by experts in the field of sustainability and has been utilized in previous similar research thus enhancing the validity of the data collected for analysis (Akeel et al., 2019; Lozano et al., 2019).

3.8 Ethical Issues in Research

Ethical considerations were taken into account in the entire research process. Ethical considerations in research entail assessing the effects that the research could have and potential harm to the respondents and appropriate measures taken to prevent issues. The researcher sought the necessary ethical approvals both from the University Ethics Board and from the National Authorities before commencing the research.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the results of this study as set out in the research objectives and research methodology. The purpose of this study was to establish the extent of sustainability integration and to highlight the factors determining environmental, social and cross-cutting sustainability integration in business graduate programs in Kenya. The chapter starts by providing response rate and reliability test results. Descriptive statistic results are then provided followed by factor analysis, normality test, Mann Whitney U test, Kruskal Wallis Test and logistic regression.

4.2 Response Rate

The researcher administered 78 questionnaires to final year business students or students who have recently finished their programs in various Universities in Kenya. The unit of analysis were the business programs. Out of the 78 questionnaires sent out to the respondents, 47 were returned fully complete representing 60% response rate. The 47 returned questionnaires were distributed as follows: 23 from public universities and 24 private universities. According to Saunders et al. (2009), a response rate above 50% is considered adequate for analysis. The response rate of 60% was thus considered a good representation of the views of the target population. Table 4.1 shows a summary of the response rate.

Table 4. 1: Response Rate

University	Number of courses	Response rate (%)
Public	46	23(50)
Private	32	24(75)
Total	78	47(60.2)

4.3 Reliability tests

Reliability analysis was done to evaluate survey construct using Cronbach's alpha. The results indicate that the questionnaire items used to measure the themes were reliable. Environmental sustainability themes had a coefficient of 0.789, social sustainability themes had 0.743, and cross-cutting sustainability themes had 0.601. The variable items were considered to be reliable as they met the 0.6 threshold. Table 4.2 shows the reliability results.

Table 4. 2: Reliability Test

Sub constructs	Cronbach's Alpha	Number of Items	Conclusion
Environmental sustainability themes	0.789	10	Reliable
Social sustainability themes	0.743	11	Reliable
Cross-cutting sustainability themes	0.601	10	Reliable

4.4 Descriptive Statistics of the variables

This section provides descriptive statistics results based on the study variables. The specific statistics used include frequencies, percentages, means, mode, median and standard deviation.

4.4.1 Explanatory factors

The descriptive statistics relating to the main explanatory factors are presented in Table 4.3. The factors include gender of the dean, status of the University, Sustainability oriented mission/vision, accreditation and size of the university. The findings indicate that 76.6% of the business programs were offered in universities where deans were male. Majority of the programs (51.1%) were from private universities, while the rest were from public universities. 76.6% of the business programs were offered in universities that had a university's mission/vision that was sustainability oriented, and 53.2% of the business programs were offered in universities that did not belong to any of the international accreditation body. Finally, 44.7% of the business programs were offered in universities that were medium sized.

Table 4. 3: Descriptive Statistics; Explanatory factors

Variables	N	%
Gender of dean		
Male	36	76.6
Female	11	23.4
Total	47	100
Status		
Public	23	48.9
Private	24	51.1
Total	47	100
Sustainability oriented mission/vision		
Non sustainable	11	23.4
Sustainable	36	76.6
Total	47	100
Accreditation		

Variables	N	%
Non accredited university	25	53.2
Accredited university	22	46.8
Total	47	100
Size of the university		
Large	17	36.2
Medium	21	44.7
Small	9	19.1
Total	47	100

4.4.2 Extent of integration of social sustainability issues

The study sought to investigate the extent of integration of relevant social sustainability issues in graduate business programs. The findings indicate an aggregate mean of 2.1 and standard deviation of 1.0. This implied that most of the respondents noted that their institutions had incorporated the social sustainability aspects in the course programs to a small extent. Some of the aspects that had been incorporated to a very great extent included employment/ unemployment, and labour, human rights. Results are shown in Table 4.4.

Table 4. 4: Descriptive statistics; Social sustainability issues

	Median	Mode	Mean	S.D
Bribery and corruption	1	1	1.3	0.6
Culture diversity (Own and others)	2	2	2.6	1.3
Demography, population	1	1	1.2	0.4
Employment, Unemployment	5	5	4.5	1.3
Equity and justice	1	1	1.4	1.0
Diversity	1	1	1.3	1.0
Health	2	1	2.4	1.4
Labour, Human Rights	5	5	4.5	1.3
Education	1	1	1.0	0.2
Poverty	1	1	1.6	1.1
Social Cohesion	1	1	1.6	1.1
Aggregate mean			**2.1**	**1.0**

Further, cross tabulation was conducted to determine the prevalence of social sustainability issues in public and private universities. Results in Table 4.5 indicate that Culture diversity (Own

and others), employment/unemployment, equity and justice, diversity, health, labour, Human Rights and social cohesion are more prevalent in private than in public universities.

Table 4. 5: Cross Tabulation; prevalence of social sustainability issues

Theme	Great extent	Very great extent	Total
Culture diversity (Own and others)	2	1	3
	0	7	7
Employment, Unemployment	0	19	19
	2	21	23
Equity and justice	0	0	0
	4	2	6
Diversity	0	0	0
	1	3	4
Health	8	2	10
	5	5	10
Labour, Human Rights	0	19	19
	2	21	23
Social Cohesion	5	0	5
	6	4	10

4.4.3 Extent of integration of environmental sustainability issues

The study sought to determine magnitude of integration of relevant environmental sustainability issues in graduate business programs. The findings indicate an aggregate mean of 1.2 and standard deviation of 0.4. This implied that most of the respondents noted that their institutions had not incorporated the environmental sustainability aspects in the course programs. Some of the aspects that had been incorporated to a small extent include global warming, emissions, acid rain, climate change, ozone depletion, policy and administration, pollution/accumulation of toxic waste, resources (depletion, conservation) (materials, energy, water), resource efficiency and eco-efficiency, desertification, deforestation, land use, product and Services (inc Transport) and ozone depletion. Results are shown in Table 4.6.

Table 4. 6: Descriptive statistics; Environmental sustainability issues

	Median	Mode	Mean	S.D
Biodiversity	1	1	1.0	0.2
global warming, emissions, acid rain, climate change, ozone depletion	1	1	1.1	0.3
Policy and administration	1	1	1.8	1.3
Pollution/accumulation of toxic waste	1	1	1.1	0.3
Resources (depletion, conservation) (materials, energy, water)	1	1	1.2	0.4
Resource efficiency and eco-efficiency	1	1	1.1	0.3
Desertification, deforestation, land use	1	1	1.1	0.2
Product and Services (inc Transport)	1	1	1.0	0.1
Ozone depletion	1	1	1.1	0.3
Alternatives	1	1	1.0	0.0
Aggregate			**1.2**	**0.4**

Further, cross tabulation was conducted to determine the prevalence of environmental sustainability issues in public and private universities. Results in Table 4.7 indicate that policy and administration, global warming, emissions, acid rain, climate change, ozone depletion, pollution/accumulation of toxic waste, resources (depletion, conservation) (materials, energy, water; resource efficiency and eco-efficiency; and desertification, deforestation, land use are more prevalent in private than in public universities.

Table 4. 7: Cross Tabulation; prevalence of environmental sustainability issues

Theme	University status	Small extent	Great extent	Very great extent	Total
Policy and administration	Public		2	0	2
	Private		0	5	5
global warming, emissions, acid rain, climate change, ozone depletion	Public	0			0
	Private	6			6
Pollution/accumulation of toxic waste	Public	0			0

Theme	University status	Small extent	Great extent	Very great extent	Total
	Private	5			5
Resources (depletion, conservation) (materials, energy, water)	Public	2			2
	Private	5			5
Resource efficiency and eco-efficiency	Public	2			2
	Private	4			4
Desertification, deforestation, land use	Public	0			0
	Private	3			3

4.4.4 Extent of integration of Cross-cutting sustainability issues

The study investigated the level of integration of relevant cross-cutting sustainability issues in graduate business programs. The findings indicate an aggregate mean of 2.1 and standard deviation of 0.7. This implied that most of the respondents noted that their institutions had incorporated the cross-cutting sustainability aspects in the course programs to a small extent. Majority of the respondents noted that communication and reporting, ethics and philosophy and governance aspects had been incorporated in the course programs to a very great extent. Results are shown in Table 4.8.

Table 4. 8: Descriptive Statistics; Cross-cutting sustainability issues

	Median	Mode	Mean	S.D
Communication and reporting	5	5	3.6	1.6
Disciplinarity	1	1	1.0	0.0
Ethics and philosophy	5	5	4.0	1.4
Governance	5	5	3.9	1.6
Holistic thinking	1	1	1.0	0.0
Long Term Thinking	1	1	1.0	0.0
People as part of nature/limits to growth	1	1	1.0	0.0
Responsibility	3	3	2.5	1.2
Sustainable development Statement	1	1	1.8	1.4
System Thinking/ Application	1	1	1.0	0.0
Aggregate			2.1	0.7

Further, cross tabulation was conducted to determine the prevalence of cross-cutting themes in public and private universities. Results in Table 4.9 indicate that communication and reporting, ethics and philosophy, governance, responsibility and sustainable development Statement are more prevalent in private universities than in public universities.

Table 4. 9: Cross Tabulation; prevalence of cross-cutting sustainability issues

Theme	University status	Great extent	Very great extent	Total
Communication and reporting	Public	5	10	15
	Private	4	15	19
Ethics and philosophy	Public	3	5	8
	Private	0	23	23
Governance	Public	3	12	15
	Private	2	16	18
Responsibility	Public	0	0	0
	Private	2	5	7
Sustainable development Statement	Public	0	3	3
	Private	4	2	6

4.5 Factor Analysis

Factor analysis was used to summarize data to be more manageable without losing any important information and therefore making it easier to test hypothesis. Kaiser (1974) noted that factor loading values that are greater than 0.4 should be accepted and values below 0.4 discarded. The study conducted a Confirmatory Factor Analysis (CFA) to uncover the underlying structure of relatively large sets of variables. CFA was done using the Kaiser-MeyerOlkin (KMO) test for sampling adequacy and Barlett's Test of Sphericity. KMO and Barlett's test play an important role for accepting sample adequacy. While the KMO ranges from 0 to 1, the accepted index should be above 0.5 (Kaiser, 1974). This was the threshold used in the study.

The study carried out factor analysis for environmental, social, and cross-cutting sustainability themes. The findings as shown in Table 4.10 revealed that KMO sampling adequacy for the three variables was 0.552, 0.502 and 0.691 respectively. This is within the threshold, therefore, the factors under these variables were considered meeting the sampling adequacy and hence necessary to carry out factor analysis.

Table 4. 10: KMO and Bartlett's Test of Sphericity

	KMO	Bartlett's Test of Sphericity			Conclusion	Validity
Variable		Approx. Chi-Square	df	Sig.		
Environmental sustainability themes	0.552	311.917	15	0.000	Acceptable	Valid
Social sustainability themes	0.502	65.332	21	0.000	Acceptable	Valid
Cross-cutting sustainability themes	0.691	48.081	10	0.000	Acceptable	Valid

Table 4.10 shows a summary of factor loadings for environmental, social and cross-cutting sustainability themes. According to Tabachnick et al. (2019) a minimum factor loading of 0.4 was sufficient for real-life data. The findings indicated that all aspects of environmental and cross-cutting sustainability themes loaded very well, where each indicator had a factor Eigenvalue above 0.4. On social sustainability themes, all the aspects loaded very well except two that had Eigenvalue below 0.4. The two aspects were dropped in subsequent analysis.

Table 4. 11: Factor Loadings for the environmental, social and cross-cutting sustainability themes

	Items	Factor loadings
Environmental sustainability themes	Biodiversity	0.54
	Global warming, emissions, acid rain, climate change, ozone depletion	0.658
	Policy and administration	0.611
	Pollution/accumulation of toxic waste	0.773
	Resources (depletion, conservation) (materials, energy, water)	0.82
	Resource efficiency and eco-efficiency	0.769
Social sustainability themes	Bribery and corruption	0.5
	Culture diversity (Own and others)	0.608
	Demography, population	0.746
	Employment, Unemployment	0.341
	Equity and justice	0.746
	Diversity	0.491
	Health	0.193
Cross-cutting sustainability themes	Communication and reporting	0.786
	Ethics and philosophy	0.661
	Governance	0.528
	Responsibility	0.719
	Sustainable development Statement	0.746

Extraction Method: Principal Component Analysis.

4.6 Normality Test

The normality of the data was tested using the Shapiro-Wilk test. The criterion was that the probability value should be greater than 0.05 for the null hypothesis of normal distribution to be accepted(Jorge, Madueño, et al., 2015). Results in Table 4.12 reveal that the probability values (Sig.) were less than 0.05, and this led to rejection of the null hypothesis. This implied that the data was not normally distributed. Skewness and Kurtosis tests also confirmed that the data was not normally distributed. For Skewness, the statistics should range from -1 to 1, and Kurtosis, the statistic should be around 3. Therefore, non-parametric tests including Mann Whitney U test and Kruskal Wallis test were adopted in the subsequent analysis.

Table 4. 12: Shapiro-Wilk test of normality

		Skewness		Kurtosis		*Shapiro-Wilk*		
	N	Statistic	Std. Error	Statistic	Std. Error	Statistic	df	Sig.
Environmental sustainability themes	47	1.933	0.347	2.812	0.681	0.598	47	0.000
Social sustainability themes	47	1.514	0.347	1.648	0.681	0.805	47	0.000
Cross-cutting sustainability themes	47	-0.489	0.347	-0.859	0.681	0.913	47	0.002

4.7 Relationship between explanatory factors and integration of social sustainability course

4.7.1 Mann Whitney U test

The study sought to determine whether the main explanatory factors influence the extent to which masters' programs are integrating social sustainability courses. Mann Whitney U test results are shown in Table 4.13. For status of the university, the findings indicate a p value of $0.001<0.05$ implying rejection of the null hypothesis of equal mean ranks. This suggested that private universities had a significantly higher level of integration of social sustainability aspects in business graduate programs compared to public universities.

However, accreditation, gender of the dean and sustainability-oriented mission/vision showed p values less than 0.05, implying non rejection of the null hypothesis of equal mean ranks. This implied that there were no significant mean rank differences in regard to integration of social sustainability aspects in business graduate programs based on accreditation, gender of the dean and sustainability-oriented mission/vision.

Table 4. 13: Mann Whitney U test; explanatory factors and social sustainability course

		N	Mean Rank	Z	P value
Social sustainability themes	Accreditation				
	non-accredited university	25	27.28	-1.779	0.075
	accredited university	22	20.27		
	Gender of dean				
	Male	36	23.01	-0.907	0.364
	Female	11	27.23		
	Status				
	Public	23	17.13	-3.421	0.001
	Private	24	30.58		
	Sustainability oriented mission/vision				
	Non sustainability inclusive mission/ vision statement	11	27.77	-1.061	0.289
	Sustainability inclusive mission/ vision statement	36	22.85		

4.7.2 Kruskal Wallis test

Kruskal Wallis test was conducted to determine the relationship between size of the university and integration of social sustainability courses. The findings indicated a p value of 0.012<0.05 implying rejection of the null hypothesis of equal mean ranks. This suggested that small universities had a significantly higher level of integration of social sustainability aspects in business graduate programs, followed by medium universities and lastly large universities. Results are presented in Table 4.14.

Table 4. 14: Kruskal Wallis Test; Size of university and social sustainability course

	Size of the university	N	Mean Rank	Chi2	P value
Social sustainability themes	Small	9	34.78	8.867	0.012
	Medium	21	24.05		
	Large	17	18.24		
	Total	47			

4.7.3 Ordinal Regression Analysis

Ordinal regression analysis was conducted to determine the relationship between the explanatory factors and integration of social sustainability themes in graduate business programs. The findings in Table 4.15 indicate an R squared of 0.482. This implies that the model (explanatory factors) explains 48.2% of the variance in the dependent variable (social sustainability integration). Results also indicate a negative estimate [-20.786] for university status, which is statistically significant at 0.000<0.05. This suggest that lower integration of social sustainability themes in graduate business programs is more likely in public universities than private universities. The findings further indicate negative estimates [-18.013, -18.55] for size of the university, which is statistically significant at 0.000<0.05. This suggest that higher integration of social sustainability themes in graduate business programs is more likely in small and medium sized universities than in large universities.

Table 4.15:Ordinal regression analysis; social sustainability integration

		Estimate	Std. Error	Wald	df	Sig.
Threshold	Social sustainability integration	-18.735	1.002	349.516	1	0
Location	Male	-2.52	1.335	3.562	1	0.059
	Female	0a	.	.	0	.
	Public	-20.786	1.305	253.874	1	0.000
	Private	0a	.	.	0	.
	Non sustainability inclusive mission/ vision statement	0.117	1.007	0.013	1	0.908
	Sustainability inclusive mission/ vision statement	0a	.	.	0	.
	non-accredited university	1.835	1.401	1.717	1	0.19
	accredited university	0a	.	.	0	.
	Small	-18.013	1.242	210.179	1	0.000
	Medium	-18.55	0	.	1	.
	Large	0a	.	.	0	.
	R squared	0.482				

4.8 Relationship between explanatory factors and integration of environmental sustainability course

4.8.1 Mann Whitney U test

The study sought to determine whether the main explanatory factors influence the extent to which masters' programs are integrating environmental sustainability courses. Mann Whitney U test results are shown in Table 4.16. For sustainability-oriented mission/vision, the findings

indicate a p value of 0.007<0.05 implying rejection of the null hypothesis of equal mean ranks. This suggested that universities with sustainability inclusive mission/ vision statement had a significantly higher level of integration of environmental sustainability aspects in business graduate programs compared to those without sustainability inclusive mission/ vision statement.

However, accreditation, gender of the dean and status of the university showed p values less than 0.05, implying non rejection of the null hypothesis of equal mean ranks. This implied that there were no significant mean rank differences in regard to integration of environmental sustainability aspects in business graduate programs based on accreditation, gender of the dean and status of the university.

Table 4. 16: Mann Whitney U test; explanatory factors and environmental sustainability course

		N	Mean Rank	Z	P value
Environmental sustainability themes	Accreditation				
	non-accredited university	25	23.88	-0.075	0.94
	accredited university	22	24.14		
	Gender of dean				
	Male	36	23.14	-0.91	0.363
	Female	11	26.82		
	Status				
	Public	23	23.54	-0.261	0.794
	Private	24	24.44		
	Sustainability oriented mission/vision				
	Sustainability inclusive mission/ vision statement	11	32.32	-2.685	0.007
	Non-sustainability inclusive mission/ vision statement	36	21.46		

4.8.2 Kruskal Wallis test

Kruskal Wallis test was conducted to determine the relationship between size of the university and integration of environmental sustainability courses. The findings indicate a p value of 0.21>0.05 implying non rejection of the null hypothesis of equal mean ranks. This suggested that there were no significant mean differences in regard to integration of environmental sustainability aspects in business graduate programs based on size of the university. Results are presented in Table 4.17.

Table 4. 17: Kruskal Wallis Test; explanatory factors and environmental sustainability course

	Size of the university	N	Mean Rank	Chi2	P value
Environmental	Small	9	28.78	3.125	0.21
	Medium	21	20.93		
	Large	17	25.26		
	Total	47			

4.8.3 Ordinal Regression Analysis

Ordinal regression analysis was conducted to determine the relationship between the explanatory factors and integration of environmental sustainability themes in graduate business programs. The findings in Table 4.18 revealed that all the parameter estimates were statistically insignificant (Sig. >0.05). Therefore, none of the explanatory factors contributed significantly to the integration of environmental sustainability themes in graduate business programs.

Table 4.18:Ordinal regression analysis; Environmental sustainability integration

		Estimate	Std. Error	Wald	df	Sig.
Threshold	Environmental sustainability integration	16.113	1.265	162.343	1	0
Location	Male	-0.194	1.377	0.02	1	0.888
	Female	0a	.	.	0	.
	Public	-2.116	3705.267	0	1	1
	Private	0a	.	.	0	.
	Non sustainability inclusive mission/ vision statement	-16.682	4922.342	0	1	0.997
	Sustainability inclusive mission/ vision statement	0a	.	.	0	.
	non-accredited university	-15.915	4138.63	0	1	0.997
	accredited university	0a	.	.	0	.
	Small	30.756	4138.63	0	1	0.994
	Medium	14.646	0	.	1	.
	Large	0a	.	.	0	.
	R squared	0.342				

4.9 Relationship between explanatory factors and integration of cross-cutting sustainability course

4.9.1 Mann Whitney U test

The study sought to determine whether the main explanatory factors influence the extent to which masters programs are integrating cross-cutting sustainability courses. Mann Whitney U test results are shown in Table 4.19. For status of the university, the findings indicate a p value of 0.000<0.05 implying rejection of the null hypothesis of equal mean ranks. This suggested that private universities had a significantly higher level of integration of cross-cutting sustainability aspects in business graduate programs compared to public universities.

However, accreditation, gender of the dean and sustainability inclusive mission/ vision statement showed p values less than 0.05, implying non rejection of the null hypothesis of equal mean ranks. This implied that there were no significant mean rank differences in regard to integration of cross-cutting sustainability aspects in business graduate programs based on accreditation, gender of the dean and sustainability inclusive mission/ vision statement.

Table 4. 19: Mann Whitney U test; explanatory factors and cross-cutting sustainability course

			N	Mean Rank	Sum of Ranks	Z	P value
Cross-cutting sustainability themes	Accreditation						
		non-accredited university	25	25.66	641.5	-0.892	0.373
		accredited university	22	22.11	486.5		
	Gender of dean						
		Male	36	25.58	921	-1.443	0.149
		Female	11	18.82	207		
	Status						
		Public	23	16.89	388.5	-3.507	0.000
		Private	24	30.81	739.5		
	Sustainability oriented mission/vision						
		Non sustainability inclusive mission/ vision statement	11	24.77	272.5	-0.215	0.83
		sustainability inclusive mission/ vision statement	36	23.76	855.5		

4.9.2 Kruskal Wallis test

Kruskal Wallis test was conducted to determine the relationship between size of the university and integration of cross-cutting sustainability courses. The findings indicate a p value of 0.044<0.05 implying rejection of the null hypothesis of equal mean ranks. This suggested that medium universities had a significantly higher level of integration of cross-cutting sustainability aspects in business graduate programs, followed by small universities and lastly large universities. Results are presented in Table 4.20.

Table 4. 20: Kruskal Wallis Test; explanatory factors and cross-cutting sustainability course

	Size of the university	N	Mean Rank	Chi2	P value
Crosscutting sustainability themes	Small	9	27.39	6.254	0.044
	Medium	21	27.88		
	Large	17	17.41		
	Total	47			

4.9.3 Ordinal Regression Analysis

Ordinal regression analysis was conducted to determine the relationship between the explanatory factors and integration of cross-cutting sustainability themes in graduate business programs. The findings in Table 4.21 revealed that all the parameter estimates were statistically insignificant (Sig. >0.05). Therefore, none of the explanatory factors contributed significantly to the integration of cross-cutting sustainability themes in graduate business programs.

Table 4.21:Ordinal regression analysis; Cross-cutting sustainability integration

		Estimate	Std. Error	Wald	df	Sig.
Threshold	No integration	-2.107	1.534	1.885	1	0.17
	Moderate integration	1.609	1.506	1.142	1	0.285
Location	Male	0.704	0.844	0.695	1	0.404
	Female	0a	.	.	0	.
	Public	-1.631	1.194	1.866	1	0.172
	Private	0a	.	.	0	.
	Non sustainability inclusive mission/ vision statement	0.957	0.816	1.376	1	0.241
	Sustainability inclusive mission/ vision statement	0a	.	.	0	.
	non-accredited university	0.699	0.842	0.689	1	0.407
	accredited university	0a	.	.	0	.
	Small	-0.365	1.627	0.05	1	0.822
	Medium	0.14	1.162	0.014	1	0.904
	Large	0a	.	.	0	.
	R squared	0.205				

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary, conclusions and recommendations of the study. The presentation is done in line with the objectives of the study. The study sought to establish the extent of integration of sustainability and to define the factors determining environmental, social and cross-cutting sustainability integration in business graduate programs in Kenya.

5.2 Summary of the Findings

5.2.1 Extent of integration of relevant social sustainability issues in graduate business programs

The first objective of the study was to investigate the extent of integration of relevant social sustainability issues in graduate business programs. According to the findings, most of the respondents noted that their institutions had incorporated the social sustainability aspects in the course programs to a small extent. This was supported by an aggregate mean of 2.1. Some of the aspects that had been incorporated to a very great extent included employment/ unemployment, and labour, human rights.

However, the study revealed a different trend on areas of specialization whereas Etse and Ingley (2016) noted that themes of social justice and social responsibility were the most prevalent in a Ghanaian context, this study revealed for Kenyan business schools the most prevalent were labour and employment. This denotes that employee matters are key and thus are integrated in the curriculum. Despite there being a high level of integration in relation to social sustainability there is still room for improvement especially in aspects such as poverty, bribery and corruption, equity and justice since they reflect the societal problems that are faced in the Kenyan context as highlighted in the National Educational For Sustainable Development policy (Government of Kenya, 2013).

The study also revealed that the level of integration of matters to do with poverty was to a small extent. The explanation for this would be the lack of awareness about social sustainability and the role that businesses play in tackling poverty in Africa. Further the level of poverty in the

country also denotes that passivity by the education sector to matters to do with poverty is not an option.

5.2.2 Magnitude of integration of relevant environmental sustainability issues in graduate business programs

The second objective of the study was to determine magnitude of integration of relevant environmental sustainability issues in graduate business programs. According to the findings, most of the respondents noted that their institutions had not incorporated the environmental sustainability aspects in the course programs. This was supported by an aggregate mean of 1.2. Some of the aspects that had been incorporated to a small extent include global warming, emissions, acid rain, climate change, ozone depletion, policy and administration, pollution/accumulation of toxic waste, resources (depletion, conservation) (materials, energy, water), resource efficiency and eco-efficiency, desertification, deforestation, land use, product and Services (inc Transport) and ozone depletion.

These findings agree with those in Larrán et al. (2014) where the authors noted that environmental sustainability units were the least covered in Universities in Spain. Low integration of environmental sustainability implies that there is low environmental literacy amongst business students. This agrees with findings by Owusu et al. (2017) where the research showed that there is low environmental literacy in business students. Given the low level of integration there is need for business schools to review their programs to integrate environmental course units especially since aspects such as environmental auditing and environmental reports as highlighted by Creel and Paz (2018) are becoming a need by companies and it is imperative that the students acquire these skills in their learning.

The low level of integration of environmental sustainability reveal that Kenya is far from achieving some targets set through its various policies such as NCAAP that targets that climate change will be mainstreamed in the curriculum by 2022 as highlighted in Government of Kenya (2018) while GESIP targets that green economy will be integrated in all curriculum by 2019 (Government of Kenya, 2016).

5.2.3 Level of integration of relevant cross-cutting sustainability issues in graduate business programs

The third objective of the study was to investigate level of integration of relevant cross-cutting sustainability issues in graduate business programs. According to the findings, most of the respondents noted that their institutions had incorporated the cross-cutting sustainability aspects in the course programs to a small extent. This was supported by an aggregate mean of 2.1. Majority of the respondents noted that communication and reporting, ethics and philosophy and governance aspects had been incorporated in the course programs to a very great extent.

Ethics and governance were the most prevalent a finding which tallies with that of a research carried out by Larrán et al. (2014) where the researcher noted that ethics was the most prevalent cross-cutting sustainability course in Spanish universities. The high presence of ethics as a unit could be explained by the higher presence of ethics material compared to that of other cross-cutting sustainability related content as highlighted by Nicholls et al. (2013) or it could denote that ethics is taken as a key aspect that needs to be integrated by business schools.

The study highlighted that critical thinking was not integrated in business curriculum. There is a need for business schools to review their curriculum since as highlighted by Barber et al. (2014) the sustainability challenges require that students learn sharp critical thinking skills. Further it is important that business students are trained in critical thinking/ problem solving since it is one of the skills gap as highlighted by (Üçok Hughes et al., 2018).

5.2.4 Explanatory factors that might determine the extent to which masters' programs are integrating social, environmental and cross-cutting sustainability courses

5.2.4.1 Size of the University

Mann Whitney results showed that small universities had a significantly higher level of integration of social sustainability aspects in business graduate programs, followed by medium universities and lastly large universities. This agreed with the logistic regression results which showed that small and medium sized universities were more likely to have higher level of social sustainability integration in business graduate programs, compared to large universities. The findings disagreed with those of Sassen et al. (2018) who established that larger universities are more likely to disclose what sustainability measures they have put in place since they are more

visible to stakeholders and to maintain their legitimacy, they may engage in sustainability practices.

For environmental sustainability Kruskal Wallis tests showed that there were no significant mean differences in regard to integration of environmental sustainability aspects in business graduate programs based on size of the university. This was confirmed by the logistic regression tests which showed that explanatory factor of size did not contribute significantly to the integration of environmental sustainability. This agrees with findings by Larrán and Andrades (2015) that size is not a significant determinant of integration of environmental education.

For cross-cutting sustainability Mann Whitney results showed that medium universities had a significantly higher level of integration of cross-cutting sustainability aspects in business graduate programs, followed by small universities and lastly large universities. The findings agreed with Amey et al. (2020) revelation that middle universities were more likely to have a sustainability plan compared to smaller universities because of resources available and amount of funding. Based on the significant findings on the Mann Whitney tests for social and cross-cutting sustainability and on logistic tests for social sustainability integration, the hypothesis that size is a significant determinant of sustainability integration is thus partially accepted.

5.2.4.2 Status of the University

Mann Whitney results showed that private universities had a significantly higher level of integration of social and cross-cutting sustainability aspects in business graduate programs compared to public universities. These findings concurred with Larrán et al. (2014) observation that private universities offered courses related to sustainable development since the education mission is based on teaching ethics and morals all aimed at improving the society. However for environmental sustainability status of the university did not show significant mean differences.

Logistic regression tests showed lower integration of social sustainability themes in graduate business programs is more likely in public universities than private universities. Logistic regression results showed that the explanatory factor of status did not contribute significantly to integration of environmental and cross-cutting sustainability. Based on the significant findings on the Mann Whitney tests for social and cross-cutting sustainability and the significant findings

on logistic regression in relation to status and integration of social sustainability, the hypothesis that status is a significant determinant of sustainability integration is thus partially accepted.

5.2.4.3 Gender of the dean

Mann Whitney and logistic regression tests carried out did not show significant results for gender of the dean being a determinant on the extent of environmental, social and cross-cutting sustainability. This is contrary to studies such as that by Delgado et al. (2019) where women are more ethics, responsibility and sustainability oriented compared to the men. However the findings agree with those of a study carried out by Jorge et al. (2015), where the authors noted that the gender of the dean is not a significant determinant on the extent of sustainability integration. Based on both the Mann Whitney and logistic regression, the hypothesis is accepted that gender of the dean is not a significant determinant on sustainability integration in business curriculum.

5.2.4.4 Mission and vision statement and sustainability

Mann Whitney and logistic regression tests showed that there were no significant results in regard to social and cross-cutting sustainability integration based on whether the university had a sustainability oriented mission/ vision statement or not. However in relation to environmental sustainability, universities with sustainability inclusive mission/ vision statement had a significantly higher level of integration of environmental sustainability aspects in business graduate programs compared to those without sustainability inclusive mission/ vision statement. The findings were consistent with the work of Albareda-Tiana et al. (2018) who found that there was a direct link between education for sustainable development and mission statement of the University. Based on the significant findings on the Mann Whitney tests for environmental sustainability the hypothesis that mission/vision statement is a significant determinant of sustainability integration is thus partially accepted.

5.2.4.5 Accreditation status

Mann Whitney and logistic regression tests did not show significant results for the accreditation factor in relation to the extent of integration of environmental, social and cross-cutting sustainability. The findings disagreed with those of Hernandez-Diaz et al. (2020) that accreditation bodies that incorporate sustainability indicators as one of their standards contribute

to universities not only reaching quality education but also ensuring that sustainability is embedded in the educational institution. The findings further disagreed with Byrne et al. (2013) argument that accreditation bodies are drivers of curriculum renewal towards sustainability. The study also highlighted that the isomorphism or pressures by accreditation bodies that would lead to higher sustainability integration as per the institutional theory did not apply to the Kenyan universities. Based on the non-significant findings for both Mann Whitney and logistic tests for impact of accreditation status on environmental, social and cross-cutting sustainability the hypothesis that accreditation status is not a significant determinant of sustainability integration is thus accepted.

5.3 Conclusions

The study concluded that most of the universities had incorporated the social sustainability aspects in the course programs to a small extent. Employment/ unemployment, and labour, human rights were identified as some of the social sustainability aspects that most of the institutions had incorporated to the course programs to a great extent. On the other hand, aspects that most of the institutions had not incorporated at all included demography, population, diversity and education.

The study also concluded that most of the institutions had not incorporated the environmental sustainability aspects in the course programs. Some of the aspects that had been incorporated to a small extent included global warming, emissions, acid rain, climate change, ozone depletion, policy and administration, pollution/accumulation of toxic waste, resources (depletion, conservation) (materials, energy, water), resource efficiency and eco-efficiency, desertification, deforestation, land use, product and Services (inc Transport) and ozone depletion.

The study further concluded that most of the institutions had incorporated the cross-cutting sustainability aspects in the course programs to a small extent. Communication and reporting, ethics and philosophy and governance aspects had been incorporated in the course programs to a very great extent.

Finally, the study concluded based on non-parametric tests that there are statistically significant differences based on the determinant factors of status of the university, size of the university and sustainability inclusive mission/ vision statement in relation to the integration of social,

environmental and cross-cutting sustainability aspects in business graduate programs. Gender of the dean and accreditation status did not have statistically significant difference in the integration of social, environmental and cross-cutting sustainability. The logistic regression tests showed that there is a likelihood of higher integration of social sustainability in private universities and in small and medium sized universities. The other determinant factors of gender of the dean, mission/vision statement and accreditation status did not have significant logistic results in influencing environmental and cross-cutting sustainability.

5.4 Contribution to Knowledge

The study extended the empirical literature done on education for sustainable development given that majority of the previous studies focused on developed countries and a few African countries. There were limited studies that examined the extent of integration of sustainability in graduate business programs in Kenya. The study hopes to advance towards highlighting the progress that Kenya has made in achieving SDG goal 4.7 that targets that learners should acquire knowledge and skills to promote sustainable development. The study highlights that although there has been some progress but there is still room for improvement. It also highlights progress made in national policies such as NCCAP, GESIP, KNATCOM and Education for Sustainable Development Policy where it also highlighted that the country is far from reaching the targets it had set out to achieve.

The study also creates awareness regarding the lack of importance of sustainability related units in some graduate business programs. For students seeking to train on sustainability related themes given their necessity in their fields of work, they should review the course units of the programs before enrolling. From a government perspective, one of the challenges that faces the ministry of education as highlighted in the Education for Sustainable Development Policy for the education sector is lack of tools for monitoring and evaluation of integration of sustainability (Ministry of Education, 2017). This study highlights how an assessment for sustainability integration can be carried out using available sustainability tools that have been used in other countries.

The study also confirms previous findings that business programs are still driven by the shareholder theory given the small extent to which sustainability units have been integrated. This confirms previous research carried out by Barber et al.(2014), Perera and Hewege (2016) that

showed that the dominant theory that governs business schools is the shareholder theory where universities focus their content on units that are oriented towards maximization of shareholder value and minimal on other stakeholders such as the society and the environment. The study also extended the empirical literature on determinant factors on sustainability integration by examining the impact of factors that were previously researched in developed countries and highlighting how they impact sustainability in a Kenyan context.

5.5 Recommendations

5.5.1 Recommendations for policy

The UN calls for students to obtain knowledge about sustainability and how to apply it in professional and social life, it is thus imperious that themes on sustainability be incorporated into business programs. The study highlighted that although the government has put in place policies in the education sector to enhance sustainability integration, there is still room for improvement. One of the measures that can be put in place to have sustainability integration is to include it as part of accreditation policies for program approval by the Commission of University Education. This may enforce the integration since all universities are required to have their programs approved by the Commission before they begin the program. For programs that had already been approved the commission can request the Universities to review their course units to integrate sustainability related themes. The updated program should then be subsequently approved by the Commission.

The government has put in place some policies such as the NCCAP that aims to ensure the integration environmental sustainability and the GESIP, where the government also targeted that green economy will be mainstreamed in all forms of education however as per the findings of the research little has been done to integrate climate change or green economy in the curriculum, the government should thus put in place some measures that will ensure its implementation in the curriculum such as coming up with a task force that will speed up the integration.

The Ministry of Education, The Commission of University Education are urged to provide sensitization and training in sustainability for curriculum developers of business schools and other appropriate stakeholders so that these stakeholders can appreciate the importance of the sustainability problem and how urgently solutions are needed in the education sector to address it.

5.5.2 Recommendations for Institutions of higher learning

This study may be of some usefulness for business schools to think about the education that they offer and how they can change it to be more oriented to sustainability in order to remain relevant especially given that many companies are now required to prepare reports related to sustainability aspects such as environmental reports, CSR reports. There are also some environmental, social and cross-cutting norms that should be communicated in class highlighting how violation of these norms has a negative impact on reputation of the companies. Educating for Sustainability may also act as a marketing tool for students seeking sustainability related education. As highlighted by Larrán et al. (2017), integrating sustainability may be a source of competitive advantage for business schools to attract students.

There is a growing concern to increase sustainable development, responsibility, ethics and governance education in business courses, it is still underdeveloped and is not sufficient to meet the present demands of society. If business courses do not require a social, environmental or cross-cutting sustainability course how will the business students be prepared to act in a responsible manner? More importantly will their training on sustainability matters be sufficient for them to act in a sustainable way when faced with complex business environment? The findings of this study thus provide an opportunity for business schools to increase their sustainability training.

There are a number of actions that could help encourage and support sustainability such as joining regional networks of universities devoted to mainstreaming sustainability in business education, having access to regional case studies and bringing in speakers with practical experience in sustainability issues. These initiatives would help in attaining the competences necessary for individuals and institutions in promoting sustainability education.

5.5.3 Recommendations to accreditation bodies

The study highlights that accreditation bodies have not influenced the extent of integration of sustainability in most programs. Accreditation bodies thus need to explore ways in which they can pressurize business schools in the Kenyan Universities to inculcate sustainability related units in their programs. Studies such as (Cooper et al., 2014; Larrán et al., 2014) have shown that international accreditation bodies have pressurized business schools to integrate sustainability as part of the requirements of accreditation bodies. Studies could be carried out to

indicate why they have not had an impact on sustainability integration in business schools in Kenya.

Given the voluntary nature of joining accrediting bodies, it is likely that business schools in Kenya have chosen to overlook them given the low number of universities that are accredited by international bodies. It could also be that the universities pressure to accredit has not yet reached a sufficient level to demand action or that the top universities do not see the need to be involved since they already enjoy a certain level of prestige. Further studies could be carried out by accrediting bodies to investigate the reason for the low uptake.

5.6 Suggested Areas for Further Studies

The study established the factors determining environmental, social and cross-cutting sustainability integration in business graduate programs in Kenya. The focus on was business graduate programs. Other studies should consider integration of sustainability in other programs offered by the institutions such as education, health and engineering among others.

Further, the study focused on five main explanatory factors, that is, status, gender of the dean, accreditation, size and sustainability inclusive vision/mission statement. However, gender of the dean and accreditation had no significant influence on integration of environmental, social and cross-cutting sustainability aspects in business graduate programs. Other studies could consider other factors determining the integration of environmental, social and cross-cutting sustainability aspects in business graduate programs.

The study revealed the level of integration of sustainability in business schools is low. Further studies could be carried out to examine what are the factors that have hindered the integration of sustainability in business programs. This could thus act as a background of trying to come up with ways to solve the various challenges that universities are experiencing thus accelerating the integration of sustainability.

5.7 Limitations of the study

A limitation of the study is the fact that the study used terms derived from the STAUNCH assessment tool such as social responsibility, business ethics since they are the most commonly used, however there are other terms that are synonymous such as corporate citizenship, corporate philanthropy that could be considered in future research. Another limitation was that most of the

universities did not have an elaborate information database available online, which would have made it easier to obtain the information required. There is also a limitation in the ability of the students to accurately assess the business programs. The limited response could be due to a number of factors such as memory errors.

REFERENCES

AABS. (2019). *AABS-Accreditation-Standards-and-Criteria-Guidelines-2018*. https://www.aabschools.com/wp-content/uploads/2018/12/AABS-Accreditation-Standards-and-Criteria-Guidelines-2018.pdf

AACSB. (2013). *2013 Eligibility Procedures and Accreditation Standards for Business Accreditation*. AACSB International – The Association to Advance Collegiate Schools of Business.

AAU. (2009). *Abuja declaration on sustaianble development in Africa: The role of higher education*. 12th General Conference of Association of African Universities.

Akeel, U. U., Bell, S. J., & Mitchell, J. E. (2019). Assessing the sustainability content of the Nigerian engineering curriculum. *International Journal of Sustainability in Higher Education*, *20*(4), 590–613. https://doi.org/10.1108/IJSHE-11-2018-0217

Albareda-Tiana, S., Vidal-Raméntol, S., & Fernández-Morilla, M. (2018). Implementing the sustainable development goals at University level. *International Journal of Sustainability in Higher Education*, *19*(3), 473–497. https://doi.org/10.1108/IJSHE-05-2017-0069

Al-Naqbi, A. K., & Alshannag, Q. (2018). The status of education for sustainable development and sustainability knowledge, attitudes, and behaviors of UAE University students. *International Journal of Sustainability in Higher Education*, *19*(3), 566–588. https://doi.org/10.1108/IJSHE-06-2017-0091

Amey, L., Plummer, R., & Pickering, G. (2020). Website communications for campus sustainability: An analysis of Canadian universities. *International Journal of Sustainability in Higher Education*, *21*(3), 531–556. https://doi.org/10.1108/IJSHE-04-2019-0137

Annan-Diab, F., & Molinari, C. (2017). Interdisciplinarity: Practical approach to advancing education for sustainability and for the Sustainable Development Goals. *The International Journal of Management Education*, *15*(2, Part B), 73–83. https://doi.org/10.1016/j.ijme.2017.03.006

Awuzie, B., & Emuze, F. (2017). Promoting sustainable development implementation in higher education: Universities in South Africa. *International Journal of Sustainability in Higher Education*, *18*(7), 1176–1190. https://doi.org/10.1108/IJSHE-09-2016-0167

Barber, N. A., Wilson, F., Venkatachalam, V., Cleaves, S. M., & Garnham, J. (2014). Integrating sustainability into business curricula: University of New Hampshire case study. *International Journal of Sustainability in Higher Education*. https://doi.org/10.1108/IJSHE-06-2013-0068

Beddewela, E., Warin, C., Hesselden, F., & Coslet, A. (2017). Embedding responsible management education – Staff, student and institutional perspectives. *The International Journal of Management Education*, *15*(2), 263–279. https://doi.org/10.1016/j.ijme.2017.03.013

Bedoya-Dorado, C., Murillo-Vargas, G., & Gonzalez-Campo, C. H. (2021). Sustainability in the mission and vision statements of Colombian Universities. *International Journal of Sustainability in Higher Education*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/IJSHE-08-2020-0284

Beehner, C. G. (2018). Expanding Sustainable Business Education Beyond Business Schools. In J. Marques (Ed.), *Handbook of Engaged Sustainability* (pp. 1–29). Springer International Publishing. https://doi.org/10.1007/978-3-319-53121-2_51-1

Blanco-Portela, N., R-Pertierra, L., Benayas, J., & Lozano, R. (2018). Sustainability Leaders' Perceptions on the Drivers for and the Barriers to the Integration of Sustainability in

Latin American Higher Education Institutions. *Sustainability*, *10*(8), 2954. https://doi.org/10.3390/su10082954

Byrne, E. P., Desha, C. J., Fitzpatrick, J. J., & "Charlie" Hargroves, K. (2013). Exploring sustainability themes in engineering accreditation and curricula. *International Journal of Sustainability in Higher Education*, *14*(4), 384–403. https://doi.org/10.1108/IJSHE-01-2012-0003

Chatelain-Ponroy, S., & Morin-Delerm, S. (2016). Adoption of sustainable development reporting by universities: An analysis of French first-time reporters. *Accounting, Auditing & Accountability Journal*, *29*(5), 887–918. https://doi.org/10.1108/AAAJ-06-2014-1720

Chedrawi, C., Howayeck, P., & Tarhini, A. (2019). CSR and legitimacy in higher education accreditation programs, an isomorphic approach of Lebanese business schools. *Quality Assurance in Education*, *27*(1), 70–81. https://doi.org/10.1108/QAE-04-2018-0053

Commission for University Education. (2019, August). *Accreditied University Programs*.

Cooper, S., Parkes, C., & Blewitt, J. (2014). Can accreditation help a leopard change its spots?: Social accountability and stakeholder engagement in business schools. *Accounting, Auditing & Accountability Journal*, *27*(2), 234–258. https://doi.org/10.1108/AAAJ-07-2012-01062

Creel, T., & Paz, V. (2018). Teaching Sustainability in an Accounting Classroom. *Discourse and Communication for Sustainable Education*, *9*(1), 79–85. https://doi.org/10.2478/dcse-2018-0006

Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches* (4th ed). SAGE Publications.

CUE. (2020). *Commission for University Education—Downloads—Standards and Guidelines*. http://www.cue.or.ke/index.php/downloads/category/16-standards-and-guidelines

Delgado, C., Venkatesh, M., Castelo Branco, M., & Silva, T. (2019). Ethics, responsibility and sustainability orientation among economics and management masters' students. *International Journal of Sustainability in Higher Education*, *21*(2), 181–199. https://doi.org/10.1108/IJSHE-02-2019-0058

Deus, R. M., Battistelle, R. A. G., & Silva, G. H. R. da. (2016). Sustainability insights from the mission statements of leading Brazilian Universities. *International Journal of Educational Management*, *30*(3), 403–415. https://doi.org/10.1108/IJEM-05-2014-0065

Dimaggio, P. J., & Powell, W. W. (1983). The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields. *American Sociological Review*, *48*, 14.

Doh, J. P., & Tashman, P. (2014). Half a World Away: The Integration and Assimilation of Corporate Social Responsibility, Sustainability, and Sustainable Development in Business School Curricula: Half a World Away. *Corporate Social Responsibility and Environmental Management*, *21*(3), 131–142. https://doi.org/10.1002/csr.1315

Doherty, B., Meehan, J., & Richards, A. (2015). The business case and barriers for responsible management education in business schools. *Journal of Management Development*, *34*(1), 34–60. https://doi.org/10.1108/JMD-06-2013-0082

Edvardsson Björnberg, K., Skogh, I.-B., & Strömberg, E. (2015). Integrating social sustainability in engineering education at the KTH Royal Institute of Technology. *International Journal of Sustainability in Higher Education*, *16*(5), 639–649. https://doi.org/10.1108/IJSHE-01-2014-0010

Escudero, M., Alcaraz, J., & Thiruvattal, E. (2010). An Interview With Manuel Escudero: The United Nations' Principles for Responsible Management Education: A Global Call for Sustainability. *Academy of Management Learning & Education*, *9*(3), 542–550.

Etse, D., & Ingley, C. (2016). Higher education curriculum for sustainability: Course contents analyses of purchasing and supply management programme of polytechnics in Ghana. *International Journal of Sustainability in Higher Education*, *17*(2), 269–280. https://doi.org/10.1108/IJSHE-07-2015-0121

Fernando, S., & Lawrence, S. (2014). A THEORETICAL FRAMEWORK FOR CSR PRACTICES: INTEGRATING LEGITIMACY THEORY, STAKEHOLDER THEORY AND INSTITUTIONAL THEORY. *The Journal of Theoretical Accounting*, *10*(1), 149–178.

Ferrer-Balas, D., Adachi, J., Banas, S., Davidson, C. I., Hoshikoshi, A., Mishra, A., Motodoa, Y., Onga, M., & Ostwald, M. (2008). An international comparative analysis of sustainability transformation across seven universities. *International Journal of Sustainability in Higher Education*, *9*(3), 295–316. https://doi.org/10.1108/14676370810885907

Freeman, R. E. (2010). *Strategic Management: A Stakeholder Approach*. Cambridge University Press.

Friedman, M. (1962). *Capitalism and freedom*. University of Chicago Press.

Gomes, S. F., Jorge, S., & Eugénio, T. P. (2020). Teaching sustainable development in business sciences degrees: Evidence from Portugal. *Sustainability Accounting, Management and Policy Journal*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/SAMPJ-10-2019-0365

Government of Kenya. (2013). *Draft National Education for Sustainable Development Policy* (p. 18). MINISTRY OF ENVIRONMENT, WATER AND NATURAL RESOURCES. http://www.environment.go.ke/wp-content/uploads/2014/01/Draft-National-ESD-Policy_FINAL-Dec-2013.pdf

Government of Kenya. (2016). *Green Economy Strategy and Implementation Plan—Kenya 2016 – 2030*.

Government of Kenya. (2018). *National Climate Change Action Plan (Kenya): 2018-2022*. Ministry of Environment and Forestry. https://www.lse.ac.uk/GranthamInstitute/wp-content/uploads/2018/10/8737.pdf

GUNI, IAU, & AAU. (2011). *Promotion of Sustainable Development By Higher Education Institutions In Sub-Saharan Africa* (p. 112) [Survey Report].

Hart, T. A., Fox, C. J., Ede, K. F., & Korstad, J. (2015). Do, but don't tell: The search for social responsibility and sustainability in the websites of the top-100 US MBA programs. *International Journal of Sustainability in Higher Education*, *16*(5), 706–728. https://doi.org/10.1108/IJSHE-06-2014-0084

Heeren, A. J., Singh, A. S., Zwickle, A., Koontz, T. M., Slagle, K. M., & McCreery, A. C. (2016). Is sustainability knowledge half the battle?: An examination of sustainability knowledge, attitudes, norms, and efficacy to understand sustainable behaviours. *International Journal of Sustainability in Higher Education*, *17*(5), 613–632. https://doi.org/10.1108/IJSHE-02-2015-0014

Hernandez-Diaz, P. M., Polanco, J.-A., & Castaño, S. M. (2020). Do sustainability practices influence university quality? A Colombian case study. *International Journal of Sustainability in Higher Education*, *ahead-of-print*(ahead-of-print). https://doi.org/10.1108/IJSHE-03-2020-0087

Hoffman, A. J. (2000). Institutional evolution and change: Environmentalism and the US chemical industry. *Academy of Management Journal*, *42*(4), 48.

Jonson, E., McGuire, L., & O'Neill, D. (2015). Teaching Ethics to Undergraduate Business Students in Australia: Comparison of Integrated and Stand-alone Approaches. *Journal of Business Ethics*, *132*(2), 477–491.

Jorge, M. L., Madueño, J. H., & Peña, F. J. A. (2015). Factors influencing the presence of sustainability initiatives in the strategic planning of Spanish universities. *Environmental Education Research*, *21*(8), 1155–1187. https://doi.org/10.1080/13504622.2014.977231

Jorge, M. L., & Peña, F. J. A. (2014). Determinants of corporate social responsibility and business ethics education in Spanish universities. *Business Ethics: A European Review*, *23*(2), 139–153. https://doi.org/10.1111/beer.12041

Jorge, M. L., Peña, F. J. A., & Reyes, M. J. M. de los. (2015). Factors Influencing the Presence of Ethics and CSR Stand-alone Courses in the Accounting Masters Curricula: An International Study. *Accounting Education*, *24*(5), 361–382. https://doi.org/10.1080/09639284.2015.1051562

Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, *39*(1), 31–36. https://doi.org/10.1007/BF02291575

Kariaga, P., Kariaga, M. G., Ogemah, V., & Nyando, V. (2013). *Education for Sustainable Development: The Case of Masinde Muliro University of Science and Technology (MMUST)*. *Southern African Journal of Environmental Education*, 245–262.

Karrow, D. D., & Howard, P. (2020). Taking Stock of Canadian Environmental and Sustainability Education in Teacher Education Research: Chronicling our Past and Charting our Future. *Canadian Journal of Environmental Education (CJEE)*, *23*(1), 102–120.

KNATCOM. (2019). *A Guide to mainstreaming education for sustainable development (ESD) and global citizenship education into the universities in Kenya*. KNATCOM.

https://unesco.go.ke/wp-content/uploads/2019/10/GUIDELINES-FOR-ESD-AND-GCE.pdf

Larrán, M., & Andrades, J. (2015). Determining factors of environmental education in Spanish universities. *International Journal of Sustainability in Higher Education*, *16*(2), 251–271. https://doi.org/10.1108/IJSHE-01-2013-0003

Larrán, M., Andrades, J., & Muriel, de los R. (2017). Analysing the inclusion of stand-alone courses on ethics and CSR: A study of the MBA curricula of the Financial Times top-ranked business schools. *Sustainability Accounting, Management and Policy Journal*, *8*(2), 114–137. https://doi.org/10.1108/SAMPJ-05-2015-0033

Larrán, M., Andrades, J., & Muriel, de los R. M. J. (2014). Integrating corporate social responsibility into the business and marketing curricula in Spanish universities. *Esic Market Economics and Business Journal*, *45*(1), 97–120.

Leal Filho, W., & Pallant, E. (2019). Dimensions of Sustainability in Higher Education. In W. Leal Filho (Ed.), *Encyclopedia of Sustainability in Higher Education* (pp. 1–7). Springer International Publishing. https://doi.org/10.1007/978-3-319-63951-2_524-1

Lee, K.-H., Barker, M., & Mouasher, A. (2013). Is it even espoused? An exploratory study of commitment to sustainability as evidenced in vision, mission, and graduate attribute statements in Australian universities. *Journal of Cleaner Production*, *48*, 20–28. https://doi.org/10.1016/j.jclepro.2013.01.007

Longoni, A., & Cagliano, R. (2015). Environmental and social sustainability priorities: Their integration in operations strategies. *International Journal of Operations & Production Management*, *35*(2), 216–245. https://doi.org/10.1108/IJOPM-04-2013-0182

Lozano, R., Barreiro-Gen, M., Lozano, F., & Sammalisto, K. (2019). Teaching Sustainability in European Higher Education Institutions: Assessing the Connections between

Competences and Pedagogical Approaches. *Sustainability*, *11*(6), 1602. https://doi.org/10.3390/su11061602

Lozano, R., & Young, W. (2013). Assessing sustainability in university curricula: Exploring the influence of student numbers and course credits. *Journal of Cleaner Production*, *49*, 134–141. https://doi.org/10.1016/j.jclepro.2012.07.032

Mburayi, L., & Wall, T. (2018). Sustainability in the professional accounting and finance curriculum: An exploration. *Higher Education, Skills and Work-Based Learning*, *8*(3), 291–311. https://doi.org/10.1108/HESWBL-03-2018-0036

Ministry of Education. (2017). *Education for Sustainable Development Policy for the Education Sector Kenya.pdf*. Ministry of Education Kenya.

Ministry of Education. (2019). *Sessional Paper No 1: A Policy Framework for Reforming education and training for sustainable development in kenya.pdf*. Ministry of Education Kenya. https://planipolis.iiep.unesco.org/sites/planipolis/files/ressources/reforming_education_and_training_for_sustainanable_development_in_kenya_2.pdf

Mohajan, H. K. (2017). Two criteria for good measurements in research: Validity and Reliability. *Annals of Spiru Haret University. Economic Series*, *17*(4), 59–82. https://doi.org/10.26458/1746

Moon, J., & Orlitzky, M. (2011). Corporate social responsibility and sustainability education: A trans-Atlantic comparison. *Journal of Management & Organization*, *17*(5), 583–603. https://doi.org/10.5172/jmo.2011.17.5.583

Morelli, J. (2011). Environmental Sustainability: A Definition for Environmental Professionals. *Journal of Environmental Sustainability*, *1*(1), 2. https://doi.org/10.14448/jes.01.0002

Narayan, A. (2014). Accounting and accountability challenges: Implementing sustainability in tertiary organisations. *Pacific Accounting Review*, *26*(1/2), 94–111. https://doi.org/10.1108/PAR-07-2013-0072

National Treasury. (2020). *Second Voluntary National Review On The Implementation Of The Sustainable Development Goals* (p. 124). https://sustainabledevelopment.un.org/content/documents/26360VNR_2020_Kenya_Report.pdf

NEMA. (2012). *Education for Sustainable Development (ESD) Kenya Report 2005-2012*. https://www.nema.go.ke/images/Docs/Guidelines/the%20status%20of%20esd%20in%20kenya%20draft%201%20better%20version.pdf

Net Impact. (2019, October). *About Us*. Net Impact. https://www.netimpact.org/about-net-impact

Nicholls, J., Hair, J., Ragland, C., & Schimmel, K. (2013). Ethics, Corporate Social Responsibility, and Sustainability Education in AACSB Undergraduate and Graduate Marketing Curricula: A Benchmark Study. *Journal of Marketing Education*, *35*(2), 129–140.

Nicholson, C. Y., & DeMoss, M. (2009). Teaching Ethics and Social Responsibility: An Evaluation of Undergraduate Business Education at the Discipline Level. *Journal of Education for Business*, *84*(4), 213–218. https://doi.org/10.3200/JOEB.84.4.213-218

Onyonyo, P. (2015). Governance Ethics & Business: Kenyan Growing Economy at Cross-road in the 21st Century. *Advances in Economics and Business*, *3*(2), 70–81.

Orlovic Lovren, V., Maruna, M., & Stanarevic, S. (2020). Reflections on the learning objectives for sustainable development in the higher education curricula – three cases from the University of Belgrade. *International Journal of Sustainability in Higher Education*, *21*(2), 315–335. https://doi.org/10.1108/IJSHE-09-2019-0260

Owusu, G. M. Y., Ossei Kwakye, T., Welbeck, E. E., & Ofori, C. G. (2017). Environmental literacy of business students in Ghana. *International Journal of Sustainability in Higher Education*, *18*(3), 415–435. https://doi.org/10.1108/IJSHE-02-2016-0025

Paletta, A., & Bonoli, A. (2019). Governing the university in the perspective of the United Nations 2030 Agenda: The case of the University of Bologna. *International Journal of Sustainability in Higher Education*, *20*(3), 500–514. https://doi.org/10.1108/IJSHE-02-2019-0083

Palma, L., Oliveira, L., & Viacava, K. (2011). Sustainability in Brazilian federal universities. *International Journal of Sustainability in Higher Education*, *12*(3), 9.

Perera, C. R., & Hewege, C. R. (2016). Integrating sustainability education into international marketing curricula. *International Journal of Sustainability in Higher Education*, *17*(1), 123–148. https://doi.org/10.1108/IJSHE-03-2014-0041

Rasche, A., & Gilbert, D. U. (2014). Decoupling Responsible Management Education – Why Business Schools May Not Walk Their Talk. *Academy of Management Proceedings*, *2014*(1), 13321. https://doi.org/10.5465/ambpp.2014.13321abstract

Rundle-Thiele, S. R., & Wymer, W. (2010). Stand-Alone Ethics, Social Responsibility, and Sustainability Course Requirements: A Snapshot From Australia and New Zealand. *Journal of Marketing Education*, *32*(1), 5–12. https://doi.org/10.1177/0273475309345002

Rutherford, M., Parks, L., Cavazos, D., & White, C. (2012). Business Ethics as a Required Course: Investigating the Factors Impacting the Decision to Require Ethics in the Undergraduate Business Core Curriculum. *Academy of Management Learning & Education*, *11*(2), 174–186. https://doi.org/10.5465/amle.2011.0039

Sassen, R., Dienes, D., & Wedemeier, J. (2018). Characteristics of UK higher education institutions that disclose sustainability reports. *International Journal of Sustainability in Higher Education*, *19*(7), 1279–1298. https://doi.org/10.1108/IJSHE-03-2018-0042

Schwab, K. (2019). The Global Competitiveness Report 2019. *World Economic Forum*, 666.

Setó-Pamies, D., & Papaoikonomou, E. (2016). A Multi-level Perspective for the Integration of Ethics, Corporate Social Responsibility and Sustainability (ECSRS) in Management Education. *Journal of Business Ethics*, *136*(3), 523–538.

Sharma, S., & Hart, S. L. (2014). Beyond "Saddle Bag" Sustainability for Business Education. *Organization & Environment*, *27*(1), 10–15. https://doi.org/10.1177/1086026614520713

Son-Turan, S., & Lambrechts, W. (2019). Sustainability disclosure in higher education: A comparative analysis of reports and websites of public and private universities in Turkey. *International Journal of Sustainability in Higher Education*, *20*(7), 1143–1170. https://doi.org/10.1108/IJSHE-02-2019-0070

Stough, T., Ceulemans, K., & Cappuyns, V. (2020). Unlocking the potential of broad, horizontal curricular assessments for ethics, responsibility and sustainability in business and economics higher education. *Assessment & Evaluation in Higher Education*. http://www.tandfonline.com/doi/abs/10.1080/02602938.2020.1772718

Stough, T., Ceulemans, K., Lambrechts, W., & Cappuyns, V. (2018). Assessing sustainability in higher education curricula: A critical reflection on validity issues. *Journal of Cleaner Production*, *172*, 4456–4466. https://doi.org/10.1016/j.jclepro.2017.02.017

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2019). *Using multivariate statistics* (Seventh edition). Pearson.

Teixeira, G. C. dos S., & Maccari, E. A. (2018). The institutional role of business school accreditation agencies: A systematic literature review. *Revista de Gestão*, *25*(3), 274–290. https://doi.org/10.1108/REGE-04-2018-035

Üçok Hughes, M., Upadhyaya, S., & Houston, R. (2018). Educating future corporate managers for a sustainable world: Recommendations for a paradigm shift in business education. *On the Horizon*, *26*(3), 194–205. https://doi.org/10.1108/OTH-01-2018-0007

UNESCO. (2017). *Education for sustainable development goals: Learning objectives.* UNESCO.

United Nations. (2015). *Transforming our world: The 2030 Agenda for Sustainable Development*. https://www.un.org/ga/search/view_doc.asp?symbol=A/RES/70/1&Lang=E

Velazquez, L., Munguia, N., Platt, A., & Taddei, J. (2006). Sustainability University: What can be the matter? *Journal of Cleaner Production*, 810–819.

Vourvachis, P., & Woodward, T. (2015). Content analysis in social and environmental reporting research: Trends and challenges. *Journal of Applied Accounting Research*, *16*(2), 166–195. https://doi.org/10.1108/JAAR-04-2013-0027

Wachholz, S., Artz, N., & Chene, D. (2014). Warming to the idea: University students' knowledge and attitudes about climate change. *International Journal of Sustainability in Higher Education*, *15*(2), 128–141. https://doi.org/10.1108/IJSHE-03-2012-0025

WCED. (1987). *Our Common Future*. Oxford University Press.

Wu, Huang, S., Lopin, K., & Wu, W.-H. (2010). Management Education for Sustainability: A Web-Based Content Analysis. *Academy of Management Learning & Education*, *9*(3), 520–531.

Zhan, Z., Fong, P., Mei, H., Chang, X., Liang, T., & Ma, Z. (2015). Sustainability Education in Massive Open Online Courses: A Content Analysis Approach. *Sustainability*, *7*(3), 2274–2300. https://doi.org/10.3390/su7032274

APPENDICES

Appendix I: Ethical approval from the University

Strathmore UNIVERSITY

21st February 2021

Ms Waireri, Cecilia
cecilia.waireri@strathmore.edu

Dear Ms Waireri,

RE: Determinant Factors for Sustainability Integration in Graduate Business Programs in Kenya

This is to inform you that SU-IERC has reviewed and **approved** your above masters research proposal. Your application reference number is **SU-IERC0975/21**. The approval period is **21st February 2021 to 20th February 2022.**

This approval is subject to compliance with the following requirements:

i. Only approved documents including (informed consents, study instruments, MTA) will be used
ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-IERC.
iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-IERC within 48 hours of notification
iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-IERC within 48 hours
v. Clearance for export of biological specimens must be obtained from relevant institutions.
vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
vii. Submission of an executive summary report within 90 days upon completion of the study to SU-IERC.

Prior to commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology and Innovation (NACOSTI) https://research-portal.nacosti.go.ke/ and also obtain other clearances needed.

Yours sincerely,

for: Dr Virginia Gichuru,
Secretary; SU-IERC

STRATHMORE UNIVERSITY INSTITUTIONAL ETHICS REVIEW COMMITTEE (SU-IERC)
21 Feb 2021
Emailiethicsreview@strathmore.edu
P.O BOX 59857-00200
NAIROBI-KENYA

Cc: Prof Fred Were,
Chairperson; SU-IERC

Appendix II: NACOSTI approval

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: 739724

Date of Issue: 09/March/2021

RESEARCH LICENSE

This is to Certify that Ms.. Cecilia Waiteri of Strathmore University, has been licensed to conduct research in Nairobi on the topic: THE DETERMINANT FACTORS OF ENVIRONMENTAL, SOCIAL AND CROSS-CUTTING SUSTAINABILITY CONTENT INTEGRATION IN GRADUATE BUSINESS PROGRAMS IN KENYA for the period ending : 09/March/2022.

License No: NACOSTI/P/21/9329

739724

Applicant Identification Number

Director General
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

Appendix III : Participant information sheet and consent form

Researcher: Cecilia Waireri

Kindly read this information carefully before deciding to take part in this research. If you are happy to participate, you will be asked to sign a consent form.

What is the research about?

The research aims at investigation the determinant factors of sustainability integration in graduate business programs.

Why have I been chosen?

You have been chosen since you are pursuing a business related graduate program.

Benefits for participants

To understand the extent of sustainability integration in the graduate programs and highlight factors determining the extent of integration.

Are there any risks involved?

Other than the daily risks associated with your job, there are no risks involved in taking part in the study.

Will my participation be confidential?

Participation will be treated with utmost confidentiality. The research project shall not make reference to the institution.

What happens if I change my mind and I am not interested in the research?

If you are interested in participating in the study, you will be requested to sign a consent form stating that we can use the data provided in the research. If you should change your mind about participation, you have the right to withdraw at any time of the process.

Where can I get more information?

For further information about the study please contact the researcher Ms. Cecilia Waireri email Cecilia.Waireri@strathmore.edu who will be happy to answer any questions.

I have read and understood the information sheet attached and have had the opportunity to clarify any doubts I had about the study. I agree to take part in this research project and agree for my data to be documented and used for the purpose of this study. I understand that my responses will be anonymized in reports of the research. I understand my participation is voluntary and I may withdraw at any time without my legal rights being affected

I understand that information collected about me during my participation in this study will be securely stored that this information will only be used for the purpose of this study.

Please tick the box that applies to you

Participation in the research study

☐ I agree to participate ☐ I don't agree to participate

Name of participant (print name)……

Date……

Appendix IV: Questionnaire

1. How many Business Graduate programs do you have in your university?.....

2. How many students does the University have?.....

3. Is the University public or private?

   ☐ Public ☐ Private

4. What is the mission of the University?.....

   ……

   ……

   ……

   ……..

5. What is the vision of the University?.....

   ……

   ……

   ……

6. What is the gender of the dean of the business school?

   ☐ Female ☐ Male

7. Does the University belong to any of the following international accreditation body?

   AABS [ ]

   AACSB [ ]

   EFMD [ ]

   AMBA [ ]

   ABIS [ ]

Other (specify) ……..

8. Kindly indicate the extent to which your institution has incorporated the following sustainability aspects in the course programs. *Use the scale: 1- Not at all, 2- Small extent, 3- Moderate extent, 4- Great extent, 5- Very great extent.*

	1	**2**	**3**	**4**	**5**
Environmental sustainability themes					
Biodiversity					
Global warming, emissions, acid rain, climate change, ozone depletion					
Policy and administration					
Pollution/accumulation of toxic waste					
Resources (depletion, conservation) (materials, energy, water)					
Resource efficiency and eco-efficiency					
Desertification, deforestation, land use					
Product and Services (inc Transport)					
Ozone depletion					
Alternatives					
Social sustainability themes					
Bribery and corruption					
Culture diversity (Own and others)					
Demography, population					
Employment, Unemployment					
Equity and justice					
Diversity					
Health					
Labour, Human Rights					
Education					
Poverty					
Social Cohesion					
Cross -cutting themes					
Communication and reporting					
Disciplinarity					
Ethics and philosophy					
Governance					
Holistic thinking					
Long Term Thinking					
People as part of nature/limits to growth					
Responsibility					

	1	2	3	4	5
Sustainable development Statement					
System Thinking/ Application					

Appendix V: Population of the study (List of graduate business programs in Kenya)

	Course	University	Status
1	Master of Business Administration	ADVENTIST UNIVERSITY OF AFRICA	PRIVATE
2	Master of Business Administration	AFRICA INTERNATIONAL UNIVERSITY	
3	Master of Business Administration	AFRICA NAZARENE UNIVERSITY	PRIVATE
4	Master of Business Administration	CATHOLIC UNIVERSITY OF EAST AFRICA	PRIVATE
5	Master of Business Administration	CHUKA UNIVERSITY	PUBLIC
6	Master of Business Administration (Insurance and Risk Management Option)	CHUKA UNIVERSITY	PUBLIC
7	Master of Science in Finance	CHUKA UNIVERSITY	PUBLIC
8	Master of Business Administration	DAYSTAR UNIVERSITY	PRIVATE
9	Master of Business Administration	DEDAN KIMATHI UNIVERSITY OF TECHNOLOGY	PUBLIC
10	Master of Science in Agribusiness Management	EGERTON UNIVERSITY	PUBLIC
11	Master of Business Administration	EGERTON UNIVERSITY	PUBLIC
12	Master of Business Administration	JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY	PUBLIC
13	Master of Business Administration***	JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY	PUBLIC
14	Master of Business Administration	JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY	PUBLIC
15	Master of Business Administration	KABARAK UNIVERSITY	PRIVATE
16	Master of Science in Finance	KABARAK	PRIVATE

		UNIVERSITY	
17	Master of Business Management	KARATINA UNIVERSITY	PUBLIC
18	Master of Business Administration (Corporate Management)	KCA UNIVERSITY	PRIVATE
19	Master of Business of Administration	KCA UNIVERSITY	PRIVATE
20	Master of Science in Commerce	KCA UNIVERSITY	PRIVATE
21	Master of Science in Commerce***	KCA UNIVERSITY	PRIVATE
22	Master of Science in Development Finance	KCA UNIVERSITY	PRIVATE
23	Master of Business Administration	KENYA METHODIST UNIVERSITY	PRIVATE
24	Master of Science in Finance and Investment	KENYA METHODIST UNIVERSITY	PRIVATE
25	Master of Business Administration	KENYATTA UNIVERSITY	PUBLIC
26	Master of Business Administration in Hospitality and Tourism Management	KENYATTA UNIVERSITY	PUBLIC
27	Master of Business Administration in Hospitality and Tourism	KENYATTA UNIVERSITY	PUBLIC
28	Master of Economics (Finance)	KENYATTA UNIVERSITY	PUBLIC
29	Master of Economics (International Trade and Finance)	KENYATTA UNIVERSITY	PUBLIC
30	Master of Science (Finance)	KENYATTA UNIVERSITY	PUBLIC
31	Master of Science in Agribusiness	KENYATTA UNIVERSITY	PUBLIC
32	Master of Business Administration	KIBABII UNIVERSITY	PUBLIC
33	Master of Business Administration	KISII UNIVERSITY	PUBLIC
34	Master of Science in Finance and Investment	KISII UNIVERSITY	PUBLIC
35	Master of Business Administration (Conservation)	LAIKIPIA UNIVERSITY	PUBLIC
36	Master of Business Administration (MBA)	LAIKIPIA UNIVERSITY	PUBLIC
37	Master of Business Management	MAASAI MARA UNIVERSITY	PUBLIC
38	Master of Business Administration	MAASAI MARA UNIVERSITY	PUBLIC
39	Master of Business Administration	MASENO UNIVERSITY	PUBLIC

40	Master of science in Agri-Business Management	MASENO UNIVERSITY	PUBLIC
41	Master of Business Administration	MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY	PUBLIC
42	Master of Business Administration (with Information Technology)	MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY	PUBLIC
43	Master of Business Administration	MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY	PUBLIC
44	Master of Banking and Finance	MOI UNIVERSITY	PUBLIC
45	Master of Business Administration (MBA Executive)	MOI UNIVERSITY	PUBLIC
46	Master of Business Management (MBM)	MOI UNIVERSITY	PUBLIC
47	Master of Business Administration	MOI UNIVERSITY	PUBLIC
48	Master of Business Administration	MOUNT KENYA UNIVERSITY	PRIVATE
49	Master of Science in Finance	MOUNT KENYA UNIVERSITY	PRIVATE
50	Master in Business Administration	MULTIMEDIA UNIVERSITY OF KENYA	PUBLIC
51	Master of Business Administration	PAN AFRICA CHRISTIAN UNIVERSITY	PRIVATE
52	Master of Business Administration	SCOTT CHRISTIAN UNIVERSITY	PRIVATE
53	Master of Business Administration	SOUTH EASTERN KENYA UNIVERSITY	PUBLIC
54	Master of Business Administration	ST PAUL'S UNIVERSITY	PRIVATE
55	Master of Business Administration	STRATHMORE UNIVERSITY	PRIVATE
56	Master of Business Administration in Healthcare Management	STRATHMORE UNIVERSITY	PRIVATE
57	Master of Commerce	STRATHMORE UNIVERSITY	PRIVATE
58	Master of Science in Mathematical Finance	STRATHMORE UNIVERSITY	PRIVATE
59	Masters in Development Finance	STRATHMORE UNIVERSITY	PRIVATE
60	Masters in Agribusiness	STRATHMORE	PRIVATE

	Management	UNIVERSITY	
61	Master of Business Administration	UNITED STATES INTERNATIONAL UNIVERSITY	PRIVATE
62	Master of International Business Administration	UNITED STATES INTERNATIONAL UNIVERSITY	PRIVATE
63	Master of Business Administration **	UNITED STATES INTERNATIONAL UNIVERSITY	PRIVATE
64	Master of Business Management	UNIVERISTY OF KABIANGA	PUBLIC
65	Master of Business Administration (Executive)	UNIVERISTY OF KABIANGA	PUBLIC
66	Master of Business Administration	UNIVERSITY OF EASTERN AFRICA BARATON	PRIVATE
67	Master of Science in Agri-business	UNIVERSITY OF EASTERN AFRICA BARATON	PRIVATE
68	Master of Business Management	UNIVERSITY OF ELDORET	PUBLIC
69	Master of Business Administration	UNIVERSITY OF NAIROBI	PUBLIC
70	Master of Science in Finance	UNIVERSITY OF NAIROBI	PUBLIC
71	Master of Business Administration)	GARISSA UNIVERSITY	PUBLIC
72	Master of Business Administration	MACHAKOS UNIVERSITY	PUBLIC
73	Master of Economics (Finance)	MACHAKOS UNIVERSITY	PUBLIC
74	Master of Business Administration	RONGO UNIVERSITY	PUBLIC
75	Master of Business Administration (MBA)	TAITA TAVETA UNIVERSITY	PUBLIC
76	Master of Business Administration in Natural Resources Management	TAITA TAVETA UNIVERSITY	PUBLIC
77	Master of Business Administration in Social Entrepreneurship and Management (Collaboration with University Cattolica del Sacro Cuore)	TANGAZA UNIVERSITY COLLEGE	PRIVATE
78	Master of Business Administration	THE CO-OPERATIVE UNIVERSITY	PUBLIC
79	Master of Business Administration	MANAGEMENT UNIVERSITY OF	PRIVATE

		AFRICA	
80	Master of Business Administration	PRESBYTERIAN UNIVERSITY OF EAST AFRICA	PRIVATE
81	Master of Science in Business Administration	TECHNICAL UNIVERSITY OF MOMBASA	PUBLIC

There are a total of 81 graduate business courses. The courses with *** are duplicated. These have removed from the total population of the study leaving the total programs under study to 78.