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Research

Higher education gender analysis: access to employability and entrepreneurship opportunities

Sub-Saharan Africa: Ghana, Kenya, Nigeria and South Africa

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Abbreviations

AFRETEC	African Technology and Engineering Network
AGEE	Accountability for Gender Equality in Education
ANIE	African Network for Internationalization of Education
AWIB	African Women In Business Initiative
DTI	Department of Trade and Industry
ERGP	Economic Recovery and Growth Plan
FGD	focus group discussion
GBV	gender-based violence
GER	gross enrolment ratio
GPI	Gender Parity Index
IAU	Innovation for African Universities
ICT	information communication technology
IWF	Isivande Women's Fund
KNEIL	Kenya Network of Entrepreneurial Institutions Leaders
NGO	non-governmental organisation
NSDS	National Skills Development Strategy
NSFAS	National Student Financial Aid Scheme
SDL	Skills Development Levy
SETA	Sector Education and Training Authority
SIWES	Student Industrial Work Experience Scheme
SME	small and medium-sized enterprise
SPSS	Statistical Package for the Social Sciences
STEM	science, technology, engineering and mathematics
WIC	Wits Innovation Centre
WIL	work-integrated learning
WiSTEM	Women in STEM

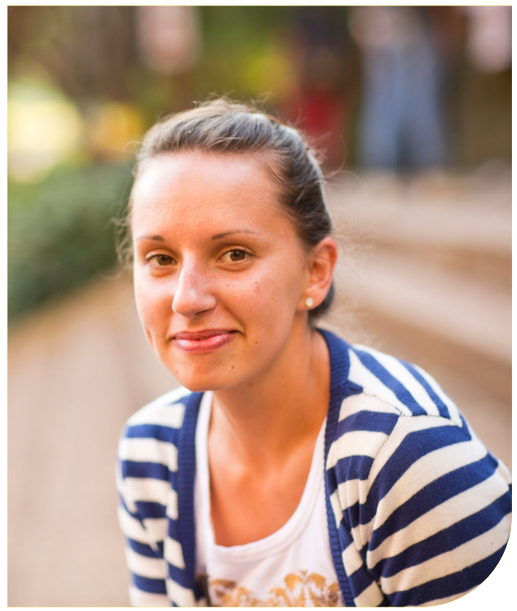
Executive summary

The study carried out a contextualised analysis of the difficulties and challenges faced by students in Sub-Saharan African universities regarding how gender affects the pursuit of employability and entrepreneurship opportunities. It includes specific examples from universities in Ghana, Kenya, Nigeria and South Africa. The study explores some of the main challenges and barriers facing students – especially female students – in African universities regarding access to employability and entrepreneurship opportunities.

The study adopted a multimethod and intersectional approach due to the multifaced nature of the challenges facing female students in their institutions and the growing complexities of contemporary society in general. The study data was generated from a review of the relevant contextual literature on gender in higher education in Africa and in the four case countries used in this study. Data was also collected from students at selected universities in the four countries, and this was followed up in focus group discussions with selected student participants. Further information was collected from targeted interviews with institutional leaders and relevant staff from the participating institutions and a few relevant external stakeholders.

The study highlights the myriad and persistent challenges facing female students in Sub-Saharan African universities, and how these affect their pursuit of employability and entrepreneurship opportunities. It notes the remarkable transformations and growth that have taken place in the higher education sectors of the four countries and the efforts being made towards gender mainstreaming and the promotion of inclusion and equality in the institutions of the study countries. The study notes, however, that these efforts have not been adequate and have thus not dealt with the persistent challenges facing female students in these institutions at a time when new and more complex problems and challenges are emerging. Good progress appears to have been made regarding access to higher education by female students, despite several continuing barriers and challenges within the institutions and in wider society. Similar progress has been made in developing policies both at national and institutional levels. However, weak operationalisation and implementation render most of the policies ineffective or not particularly useful for those whom they should serve.

The study also identifies and highlights some best practices and innovations that have been adopted by some of the institutions to respond to these challenges. Some of these are observable in the institutions that have participated in the Innovation for African Universities (IAU) programme supported by the British Council and in a number of other forward-looking initiatives implemented by the institutions. Despite these efforts, the study notes that the barriers and challenges facing female students in African universities still persist, and some may even negate the gains already made. There are also new opportunities, in particular the rise of digitalisation and various forms of information communication technology (ICT) and access to new skill sets and opportunities that could assist in turning the situation around.



A summary of the main findings of the study are as follows.

- Female students in Sub-Saharan African universities continue to face several challenges in accessing employability and entrepreneurship opportunities. These can include: sexual harassment/intimidation and bribery; organisations refusing to hire women because of their marital status; and gender-based stereotypes, culture and societal norms, among others.
- As seen from the study countries, several African universities are putting in place training programmes for entrepreneurship, which are beginning to have some impact but have not yet realised their full potential and are not accessible to all students.
- There are progressive gender policies at national and institutional levels, most of which have not been fully implemented and lack mechanisms for enforcement. The students also have inadequate awareness of the existence of these policies and their impacts. There is thus a disconnect between policy and practice.
- Most of the universities still face myriad challenges, including poor funding, weak governance, poor quality of programmes and poor student services, among others. These all affect the support and opportunities they provide to students, including opportunities for entrepreneurship and access to employability.
- University-industry/private sector links remain weak and poorly developed. Some of the universities are located in regions far from major industrial centres. The study shows just a handful of universities with mutually beneficial engagements with industry and the private sector.
- Curriculum reforms and innovations have been slow and have not kept pace with societal demands and changes. Students generally called for a review of training programmes to allow the integration of new developments, including opportunities for digitalisation.
- Cultural beliefs and deep-seated social norms continue to pose challenges and barriers for female students. Some of the cultures perceive female students as less suited for certain courses, especially in science, technology, engineering and mathematics (STEM), and a deep-seated expectation still persists in society that women will enter into early marriage and culturally assigned roles, including care-based roles at home. This was quite evident in the case of Nigeria, especially in the northern part of the country, and is also visible in the other countries studied. These beliefs and norms continue to constitute barriers to women's participation in higher education.
- Graduate unemployment – especially among female graduates – is a growing challenge, reaching almost crisis levels, and requires urgent redress.

The study concludes with a number of recommendations, some of which call for action by the various key stakeholders, including governments, higher education institutions, international development partners, the private sector and the students themselves. The main recommendations of the study are as follows.

- Strengthening entrepreneurship training: African universities must strengthen, integrate and expand entrepreneurship training into their programmes, with a special focus on female students. The programmes should include practical and interactive training and experience in collaboration with industry partners. This training should include specific components to enable graduating students to initiate Start-up businesses and succeed. It should include important elements such as business planning, financial management, marketing strategies and navigating regulatory environments. This would also require alternative pedagogies and teaching/learning approaches that enable students, add skills and open up opportunities for all students, especially women.
- Access to business incubation centres: the establishment of business parks and incubation centres across faculties within universities, which can nurture student-led innovations and Start-ups, is recommended. Promoting mentorship programmes that specifically support female students is also crucial. Building female-focused business incubation centres within universities could also be instrumental in providing a safe and supportive space for women to develop their business ideas. Innovation hubs and business parks have emerged as critical for incentivising innovation among students. Several universities in the study countries, especially those that participated in the British Council's IAU project, are already reaping benefits from this.

- Strengthening national and institutional policies: the study found that the policy landscape is changing, with national and institutional policies now in place to deal with the challenges facing female students. The study also noted, however, that policy implementation remains a challenge, resulting in the policies not serving the students' needs.
- Establishment of strategic collaborations: the study found that institutions with established strategic and closer collaborations with industry, private sector and international development have made progress in devising ways to deal with the challenges facing female students in their pursuit of employability and entrepreneurship opportunities. Most of the best practices cited are mainly due to such collaborations and partnerships. The universities thus need to establish collaborative networks that connect female students with industry professionals, business leaders and female entrepreneurs. These would also be useful for bridging the gap between academia and the job market for female graduates.
- University-industry links: linked to the above recommendation on collaboration is the specific need for closer links between the universities and industry, which still remain unexploited and untapped. The study noted that this step is crucial and has been adopted by some institutions, as illustrated in the section on best practices. These partnerships are important for stimulating innovation and strengthening employability and entrepreneurship opportunities.
- Introduction of gender-sensitive funding mechanisms to support female students' entrepreneurial ventures: this might involve establishing university-led micro-financing schemes, grants or partnerships with private sector entities, to ensure that female students have access to the necessary capital.
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- To promote gender equity and enhance the success of female students in higher education, universities should establish integrated support systems and innovation-oriented initiatives tailored to their specific needs. These initiatives include mentorship programs involving accomplished female professionals, flexible learning schedules, counseling services, and on-campus childcare to facilitate the balance of academic and family responsibilities. Female-focused clubs and networking forums further strengthen peer support, advocacy, and career development. In parallel, the establishment of incubation centers and business parks within universities, often in partnership with the private sector, has emerged as a promising strategy to build entrepreneurial and digital innovation capacity among students, particularly women. Such centers provide access to business development training, industry linkages, and employment support services, thereby addressing structural barriers to women's economic empowerment. Notable Kenyan examples include the Chandaria Business and Innovation Centre at Kenyatta University, iLabAfrica at Strathmore University, Kabarak University's Innovation and Incubation Centre, and the AFRETEC consortium hosted by the University of Nairobi, all of which model gender-inclusive approaches to innovation and employability in higher education.
- Monitoring systems: such systems should be put in place to ensure that support services are effective and accessible. Monitoring and evaluation systems at both institutional and national levels can help to assess the progress of gender equality initiatives. They can identify best practices and areas requiring additional intervention, ensuring that policies and programmes are effectively promoting gender equality. Existing gender policies should be reinforced at both the national and institutional levels. Universities should be responsible for implementing gender-responsive practices, such as creating support centres for female students, establishing harassment prevention mechanisms and providing platforms for women to express their concerns.
- Strengthening and operationalising university policies against sexual harassment and gender-based violence to provide safer environments for female students: dedicated reporting mechanisms and awareness programmes on gender rights would provide female students with avenues to deal with difficulties related to discrimination and harassment. Universities need to put in place and enforce policies that rectify the deep inequalities and build on practices that promote justice and participation, and recognise intersectional approaches especially towards female students. This should include the Ubuntu philosophy and ethics of care – more care and less harm to each other.

- Affirmative action programmes and policies promoting gender balance in admissions, leadership positions and faculty roles: these can help to ensure that women have equal opportunities in accessing education and leadership roles. Quotas for female enrolment in specific programmes, especially in STEM fields, have been introduced in some universities to increase women's representation. Training women as agents for change and in resilience would also be useful.
- Increased awareness: programmes that challenge and reshape societal norms concerning gender roles in education and employment should be introduced. Universities, in partnership with community leaders and non-governmental organisations (NGOs), can run initiatives to encourage equal participation of women in both academic and entrepreneurial fields. National and local awareness campaigns are needed to challenge cultural norms and stereotypes that limit women's participation in higher education and entrepreneurship. These campaigns should focus on both urban and rural areas, highlighting the success stories of women in various fields to inspire future generations. Governments, in partnership with educational institutions and NGOs, should conduct awareness campaigns highlighting the importance of gender equality in education and entrepreneurship. These campaigns should be aimed at families, communities and employers, to change cultural perceptions and promote women's participation in various sectors.
- Deployment of ICT and digitalisation: the recent ICT and digitalisation developments in Kenya are encouraging and are opportunities that Kenyan universities could tap into. The few universities that have invested in ICT have made quite a lot of progress. While students generally expressed satisfaction with the developments being made to improve their access to ICT and the internet, much more needs to be done for them to benefit from the opportunities of ICT. Governments and institutions should invest in ICT and digitalisation, and make them accessible to all students, especially female students, as this would open up several opportunities for them. Students highlighted a number of digital innovations and products they have developed, some of which are already doing well in the market. There should be ways of supporting these ventures by governments and other stakeholders.
- Accessibility to financing: one of the main challenges that students identified as a hindrance to female students engaging in entrepreneurship is access to financing. The Kenyan government has started some initiatives to support young people, including helping students to access funding to start businesses. This needs to be adequate. Some universities have established such funds on a competitive basis, rather than as an affirmative action stance.

By adopting these comprehensive approaches, universities and policymakers can create a more inclusive and equitable higher education environment for women across the countries studied. Despite the efforts being made to promote gender equality, significant imbalances persist, particularly affecting female students in various ways, including access to employability and entrepreneurship opportunities.

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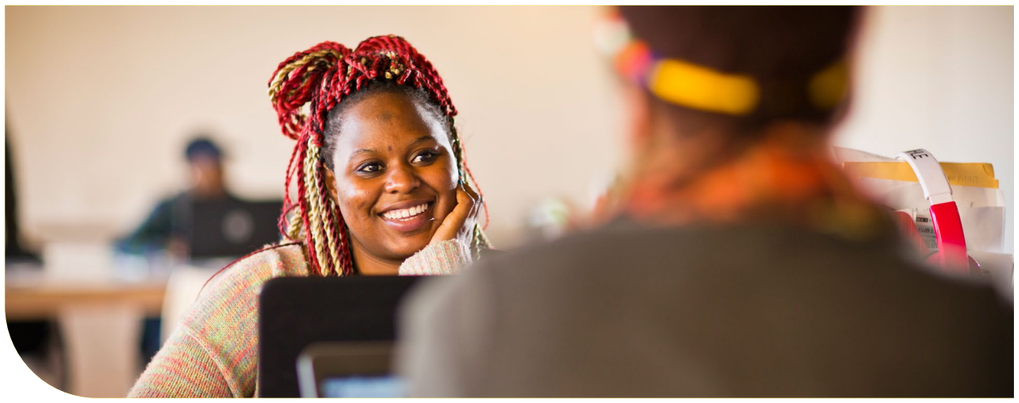
1 Introduction and context

Gender inequality in higher education is a persistent global problem, despite various initiatives aimed at resolving it. In Sub-Saharan Africa, gender disparities in higher education are particularly pronounced due to socio-cultural norms that reinforce traditional gender roles, limiting women's access to and success in higher education (Talikadze, 2020). Over the years in Sub-Saharan Africa, specific policies and programmes have been developed to support women's education and career advancement, including scholarships, financial aid and initiatives to increase women's participation in STEM fields (Garcia-Holgado et al., 2019). However, systemic and structural barriers, such as gender stereotypes, lack of adequate female role models and limited access to mentorship and networking opportunities, continue to hinder women's progress. Gender disparities and barriers to progress have persisted, especially for female students in higher education, leading to different enrolment rates; access challenges; dropouts; early marriages and pregnancies; other forms of discrimination; and difficulties in access to opportunities, including employability and entrepreneurship. It is crucial that we, as a community, engage and provide support systems to solve these problems collectively.

Economic constraints, societal expectations and gender-biased institutional policies further compound these challenges, making higher education less accessible for women (Myers and Griffin, 2019). The Covid-19 pandemic has only amplified the existing inequalities, disrupting educational opportunities for women and reinforcing traditional gender roles (Gewin, 2020; Kasymova et al., 2021). This report presents the findings of studies exploring the challenges and barriers facing female university students in Ghana, Kenya, Nigeria and South Africa, especially in their attempts to access employability and entrepreneurship opportunities. The British Council commissioned the African Network for Internationalization of Education (ANIE) to undertake this study in the four selected countries. The study thus seeks to explore the challenges faced by students/young women and men in the context of Sub-Saharan African universities, with a focus on how gender affects the pursuit of entrepreneurship opportunities and access to opportunities that can improve their employability.

Gender equity has been a major challenge and policy topic in higher education in several African countries (Okeke-Ihejerika, 2022). It was observed that women are under-represented at various levels, including at student and staff levels, due to the daunting challenges they face in their societies and within the higher education institutions. In all four countries in this study, the governments have put in place policies aimed at overcoming gender challenges in wider society and in the higher education sector. Most of these have, however, not borne fruit due to persistent challenges, including access, funding and various forms of discrimination. The impacts of these challenges permeate various areas, access to employability and entrepreneurship opportunities by female students and women, which is the main topic of this study.



1.1 Objectives and scope of the study

The study included the following three main objectives.

i. To produce a Sub-Saharan African regional analysis of gender inequality difficulties (focusing on barriers and challenges faced by students and graduates, particularly women and girls, in accessing and participating in opportunities related to employability and entrepreneurship), as relevant to the British Council's IAU programme.

ii. To identify actionable recommendations or crucial steps that the British Council can take to ensure that gender-related problems are better integrated into the Organisation's higher education programme offer.

iii. To consider the broader role of higher education in contributing to improved gender equality for students and graduates, and to develop recommendations for the Organisation's higher education sector partners and stakeholders, citing gender-sensitive or transformative approaches, as well as best practices for dealing with gender inequality.

The study carried out a contextualised analysis of the difficulties and challenges faced by students – especially women – in Sub-Saharan African universities in relation to how gender affects their pursuit of entrepreneurship and opportunities for improving employability. The study focused on Ghana, Kenya, Nigeria and South Africa for deeper insights into these difficulties, barriers and challenges. It analysed the national higher education contexts, structure, existing policy frameworks, support systems and developments relating to gender in the higher education sectors. It further explored the critical aspects of access, funding, institutional policies and support systems.

The study adopted an intersectional approach that considered how other aspects of identity such as ethnicity, religion and economic status intersect with gender and can exacerbate inequalities within the higher education sector. It thus highlights the experiences of female students and the inherent biases and barriers they face from the lenses of intersectionality. It also highlights some of the best practices and innovations that some institutions are developing to respond to these challenges. This report therefore presents the results of a study exploring the challenges and barriers that female students in Sub-Saharan African universities face, in particular in their attempts to access employability and entrepreneurship opportunities. It also developed actionable recommendations for the British Council and higher education stakeholders, to ensure that gender-sensitive and transformative approaches are effectively integrated into higher education programmes and to consider the broader role of higher education in promoting gender equality and helping female students and graduates achieve better results regarding employability and entrepreneurship.

2 Research methods and conceptual framework

The study deployed a multimethod approach comprising desk/document reviews, surveys (using questionnaires), interviews and focus group discussions (FGDs). Due to the nature of the study and the contexts of the four case countries, the study purposively selected the participating universities based on the diversity of the higher education sectors of the study countries. A broad range of characteristics including public/private, old/new, big/small and location (urban/rural/region) were thus considered in an attempt to reflect the diversity of Nigerian universities. This representation of institutions may not fully include the diversity of the Nigerian higher education system, but it should be a fair representation. Table 1 presents the selected institutions in the four countries covered by this study.

Table 1. Universities selected for the study

No.	Ghana	Kenya	Nigeria	South Africa
1	University of Health and Allied Sciences (UHAS)	University of Nairobi	Pan African University Life and Earth Sciences Institute of Health and Agriculture (PAULESI)	University of KwaZulu-Natal (UKZN)
2	University of Ghana	Moi University	Lagos Business School (LBS), Lekki	University of the Witwatersrand (Wits)
3	Regional Maritime University (RMU)	Kenyatta University (KU)	University of Benin (UNIBEN)	University of Mpumalanga (UMP)
4	Accra Technical University (ATU)	Egerton University	University of Medical Sciences (UNIMED), Ondo	University of Venda (UNIVEN)
5	University of Cape Coast (UCC)	Jomo Kenyatta University of Agriculture and Technology (JKUAT)	Coal City University (CCU), Enugu	North-West University (NWU)
6	Kwame Nkrumah University of Science and Technology (KNUST)	Daystar University	Godfrey Okoye University (GO University), Enugu	University of the Western Cape (UWC)
7	University for Development Studies (UDS)	Maseno University	Nnamdi Azikiwe University (UNIZIK), Awka	University of South Africa (UNISA)
8	Valley View University (VVU)	Mount Kenya University (MKU)	University of Port Harcourt (UNIPORT)	
9	Ashesi University	Masinde Muliro University of Science and Technology (MMUST)	Tai Solarin University of Education (TASUED), Ogun State	
10	Laweh University College	Kiriri Women's University of Science and Technology (KWUST)	Paul University Awka (PUA), Anambra State	
11			Aliko Dangote University of Science and Technology (ADUST), Wudil, Kano State	

It should be noted that both Kenya and Ghana selected ten universities to participate in the study. Due to its size and diversity, Nigeria selected 11, while South Africa had 7 participating universities, also due to the ethical clearances that were granted. It was expected that the selected institutions are a representative mix of the diversity of higher education institutions in the respective countries, including public/private ones, old and new institutions, comprehensive and differentiated institutions, institutions located in urban areas and those in rural countryside. In the case of South Africa, there was a further differentiation between the research-intensive universities and the technikons, and also between the historically white and the historically black universities.

2.1 Desk/literature review

The desk/literature review aimed at collecting, collating and analysing relevant literature on the higher education sector of the four countries. The targeted literature was mainly on the higher education system; major developments and transformations in recent years; and policy developments and changes in access, funding and quality of education in the country. It was also essential to scan for information on the institutional learning environments, university-industry/private sector links, support frameworks for students and the roles of development partners, which were necessary for understanding and contextualising the challenges facing female students and the opportunities accorded to them by the institutions to overcome them.

The study analysed government policy documents, position papers, strategic plans, strategy documents and policy frameworks with implications for gender, employability and entrepreneurship. There was a specific focus on studies relating to barriers and challenges facing female students, entrepreneurship opportunities/private sector engagements and opportunities for female students. Where possible, attention was paid to some of the universities that have participated in the British Council's IAU programme. These were important for understanding and contextualising the challenges facing female students and the opportunities accorded to them by the institutions to overcome them.

2.2 Questionnaire survey

The second data collection approach was by means of questionnaire surveys sent to students from the selected universities, with the aim of recording their experiences regarding gender-specific challenges and barriers within the institutions and their societal contexts, and regarding their access to employability and entrepreneurship opportunities. The survey, which was carried out electronically, focused on 500 students from each of the countries (i.e. about 50 students from each of the participating institutions). The strategy was that each country would include at least ten universities. In Kenya, 420 students responded to the study survey, comprising 266 women and 154 men from 10 institutions. In Ghana, the desk review focused on gender-related barriers, institutional support structures and the roles of development partners in solving these problems. A questionnaire survey sampled 479 students across 10 universities, including 251 women and 228 men.

In Nigeria, 418 students responded to the survey, 58.3 per cent of whom were women, while 41.7 per cent were men. The male students were included to ascertain whether they perceived the same barriers as their female counterparts. In the case of South Africa, the survey gathered responses from 307 participants, consisting of 203 women, 97 men, and 7 individuals identifying as other genders, from 7 public universities.

2.3 Interviews

The study interviewed the key stakeholders, including university leaders, deans and heads of department, as well as heads of units offering student services from the participating universities. The FGDs, conducted online, aimed at further exploring any interesting or unclear findings from the survey results. They also enabled the study to delve deeper into problems or parameters that may not have been clearly identified by the survey. In Ghana, in addition to the students, 20 staff members, including deans, directors and heads of service units, were interviewed to gather deeper insights into institutional practices and challenges. In Nigeria, the interviews involved 29 staff members, in Kenya 5 staff, and in South Africa 4 staff. Most of the interviews were undertaken virtually and on average lasted an hour. In the case of Nigeria, some of the interviews were face to face.

The study carried out further detailed interviews with institutional leaders at various levels, including administrators, deans of faculty and heads of support units, who played crucial roles in supporting students' lives and successes within the institutions. These were aimed at obtaining a detailed understanding of the institutional contexts and how they related to gender barriers and challenges. The institutional leaders provided information on the institutional policies and frameworks on gender, employability and entrepreneurship. They gave further insights into some of the challenges facing the institutions and the challenges facing the students, especially the women, and the efforts and support systems that the institutions were putting in place to these challenges.

2.4 Ethical considerations

The study adhered to research ethical standards, including confidentiality of the responses and anonymity of the respondents. Participation in interviews and consultative meetings was voluntary, meaning that no respondent was pressured into taking part in the process. Detailed information concerning the assessment, purpose, objectives and procedures was made available to the participants. Participants' consent was obtained to ensure that participation was voluntary and to maintain confidentiality. In addition, especially for FGDs, safe spaces were sought, as this fostered open and respectful discussion. Approvals and clearance were obtained from the institutional and relevant ethics bodies before data collection. We also adhered to the ethics guidelines provided by the British Council for this study.

2.5 Data analysis

The collected data (primary and secondary) was collated and corroborated thematically. This approach was in line with the themes relevant to our study. Substantively, we critically analysed the literature, including policy documents, to obtain synthesised information for the relevant components of the study. The data generated from the interviews and document reviews was then analysed using other tools, including a matrix approach to record research evidence according to themes and priorities, which enabled summarising of the critical findings for the study's main objectives. The interviews were recorded, which allowed the inclusion of verbatim quotes to illustrate the essential findings of the study. The interview transcripts were thematically analysed to generate deeper insights and contextual understanding concerning various relevant questions, including national and institutional policies and frameworks on gender and youth employability, and the existing challenges and barriers. These enabled us to generate robust explanations, propositions, patterns, themes and insights that answer the research questions and result in the project objectives for this study. Further, quantitative tools and, specifically, the Statistical Package for the Social Sciences (SPSS) was employed for the analysis of survey data. Lastly, verbatim quotes were used from interviews and FGDs to illustrate significant findings.

2.6 Limitations

Some institutions had low response rates, which might affect the generalisability of the findings. The reliance on electronic surveys and online interviews may have excluded participants with limited internet access, potentially introducing bias. While diverse, the study's focus on specific universities may not include the full scope of higher education challenges across all regions in each country. Overall, the methodologies employed were thorough, combining quantitative and qualitative methods to provide comprehensive insights into gender inequality in higher education across Ghana, Kenya, Nigeria and South Africa.

3 Gender analysis framework

The study was cognizant of several frameworks for gender analysis. However, it adopted the Accountability for Gender Equality in Education (AGEE) framework, which has proved beneficial for such studies. The AGEE Framework helps to interrogate complex gender problems and injustices in higher education. It considers and provides for a holistic approach, as required for this study. It considers gender inequalities and barriers based on six areas, making it a robust and holistic model.

The six areas, shown in Figure 1, include Resources (money, policies, administrators, schools/ institutional support systems, information); Values (societal values and norms that shape attitudes towards education and gender roles); Opportunities (factors that enable or constrain gender equality and how these factors can be converted into opportunities); Participation in education (looking at how factors such as socio-economic status, location, race and ethnicity differentiate girls/boys); Knowledge, understanding and skills; Outcomes (gender equality in all facets of society – education, employment, access to healthcare, economic and political opportunities). These areas and dimensions map well with the topics and parameters explored in this study.

AGEE Framework

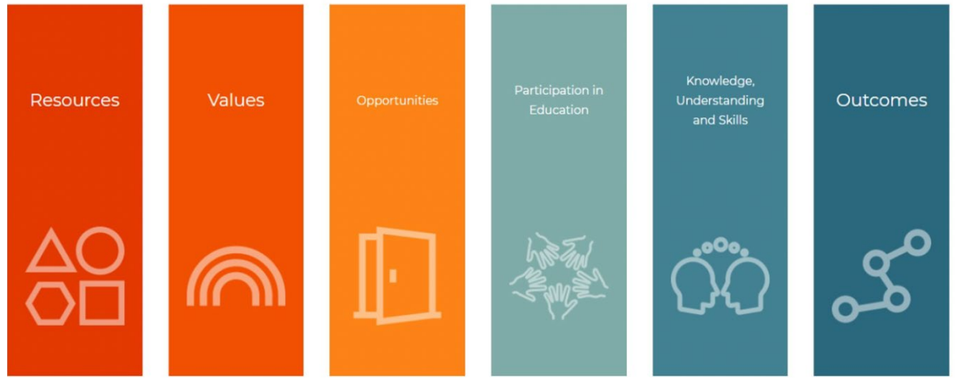


Figure 1. *The AGEE Framework (Unterhalter, et al., 2022).*

As shown in Figure 1, the six dimensions of the AGEE Framework help to measure the functioning achieved and enabled by education, in addition to the level of freedom and opportunities individuals have to convert specific resources into functioning and capabilities (i.e. what they have been able to do and become as a result of their educational achievements). This links well to the quest for and access to the employability and entrepreneurship opportunities at the core of this study. The framework further includes the social contexts and arrangements affecting the distribution of resources that influence the choices individuals make. This also links well to the social constructions and cultural norms, stereotypes and barriers that face women and female students in Nigerian universities. The model generates new ways of thinking about gender inequalities in higher education by targeting multiple questions and factors that highlight gender inequality in higher education.

We deployed the AGEE Framework to frame questions concerning student experiences, institutional practices and social policy contexts in Kenya, in particular on how the six main areas affect gender (in)equality discourses in Kenya's higher education sector. The AGEE Framework is suitable for this study due to its link with an intersectional approach (Crenshaw, 2017) to gender inequality that recognises the complex and multifaceted nature of gender issues and barriers. The framework renounces the use of a single axis dimension of (in) equality and argues for the need to interrogate a multiplicity of intersectional factors. It further interrogates policy-related difficulties and gaps, and how social positioning and power relations inform our understanding of the gender-related barriers female students face in Kenya's higher education institutions.

The study reviewed the British Council's 'Gender equality in higher education: maximising impacts' document and the Organisation's theory of change. Specifically, the following components are singled out as being critical: fair access to resources and opportunities; a supportive legal and policy environment; changes in attitudes and social norms; and increased awareness and agency among women and girls. In this study on the barriers to and opportunities for employability and entrepreneurship for female students in universities in Sub-Saharan Africa, the framework was employed in the ways explained below.

First, the study explored the concept of fair access to resources and opportunities by investigating the educational and financial resources available to female students. Research indicates that female entrepreneurs often face significant barriers in accessing capital and financial support compared with their male counterparts (Dawa et al., 2021). By examining the availability of scholarships, grants and entrepreneurial training programmes specifically designed for women, the study sought to identify gaps in resource allocation, with the aim of proposing targeted interventions. For instance, programmes that boost financial literacy and provide mentorship could enable female students to navigate the entrepreneurial landscape more effectively (Manzanera-Ruiz et al., 2023).

Second, the legal and policy environment is crucial for fostering gender equality in entrepreneurship. The study analysed the policies that affect female students' access to employability and entrepreneurship opportunities. For example, it assessed the effectiveness of policies promoting gender equity in education and entrepreneurship, such as affirmative action initiatives or gender-sensitive curricula (Langevang and Gough, 2012). By highlighting some of the best practices and identifying areas for improvement, the study advocates changes that create a more enabling environment for female students.

Moreover, the study also attempted to meet the need for changes in attitudes, beliefs and discriminatory social norms hindering women's participation in entrepreneurship. Research has shown that societal expectations often dictate the roles women are expected to play, which can limit their aspirations and opportunities (Langevang and Gough, 2012). The study sought to identify specific social norms that must be challenged by investigating the cultural perceptions surrounding female employability and entrepreneurship. This could involve engaging with institutional and community leaders and stakeholders to promote positive narratives about women's capabilities and contributions to the economy.

Increased awareness and agency among female students are critical aspects also emphasised in the study's theory of change. Exploring how awareness of entrepreneurial opportunities and resources affects female students' intentions to start businesses or pursue careers in various fields is a critical undertaking. For instance, it is essential to examine the role of entrepreneurship education in shaping students' perceptions of their capabilities and the feasibility of starting their ventures (Mshenga et al., 2020). By assessing the impact of entrepreneurship programmes and workshops, insights could be provided into ways of boosting female students' confidence and agency in pursuing entrepreneurial paths.

Additionally, the study focuses on incorporating social networks and their influence on female entrepreneurship. Research suggests that social capital plays a significant role in entrepreneurial success, as networks can provide access to resources, information and support (Dawa et al., 2021). The study highlights the importance of fostering collaborative environments that help female students by examining the role of peer networks, mentorship programmes and community support systems. This could involve creating platforms for networking and knowledge-sharing among aspiring female entrepreneurs (Court and Arikekpar, 2022).

Finally, the study emphasises the importance of continuously monitoring and evaluating initiatives promoting gender equality in employability and entrepreneurship. By establishing clear metrics for success and regularly assessing the impact of interventions, stakeholders can ensure that efforts to help female students are effective and responsive to their needs (Manzanera-Ruiz et al., 2023). This commitment to accountability will not only strengthen the impact of gender equality initiatives but also foster a culture of inclusivity and support within higher education.

In conclusion, applying the British Council's theory of change to this study on the barriers to and opportunities for female students in the universities of Sub-Saharan Africa required a comprehensive approach that would deal with, among other things, access to resources, legal and policy frameworks, social norms and the support of female students. By focusing on these areas, the study hoped to contribute to important progress in promoting gender equality in employability and entrepreneurship.

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4 Higher education in Africa: recent developments in gender, employability and entrepreneurship

4.1 Some recent developments

The past few decades have witnessed significant developments in Africa's higher education sector (Jowi, 2021) along with several challenges. Africa's higher education sector has witnessed rapid expansion, leading to a sharp rise in student enrolment which has outstretched the capacities of most of the systems and institutions. This has further compounded the perennial challenges facing the institutions, including funding, quality, access, inadequate infrastructure, weak research, and innovation capacities and governance challenges, among others. Most of Africa's universities are young compared with their counterparts in middle-income countries.

Some of the principal reforms and transformations have been in the number and diversity of institutions, growth in student numbers, governance and quality reforms, growth in research and knowledge production, academic mobility and the impacts of digitalisation, in particular as a result of the impacts of the Covid-19 pandemic. These transformations are a result of efforts by various actors, including governments, regional and continental agencies. By 2021, there were about 1,300 higher education institutions in Africa, with nearly half of them private, thus not only showing the pace of expansion but also the rise of private higher education in Africa. Over the past ten years, students' enrolment rates rose from 5 per cent to about 11 per cent in 2021 (Mulvey, 2021), marking one of the fastest increases globally.

With regard to these transformations, it is also worth noting that although higher education in Africa is rather more recent than in most other world regions, the pace of change in Africa's higher education sector may be one of the most dramatic (Woldegiorgis and Scherer, 2019). Higher education in Africa is thus proliferating, reflecting the continent's efforts to boost economic development, innovation and social transformation (Teferra, 2020). Several of the countries have brought about significant transformation and expansion of their higher education sectors, marked by policies aimed at increasing access and improving the quality of education. This is in recognition of the role of higher education in national development and socio-economic transformation. There is also notable expansion in private higher education in most African countries.

Despite these transformations, one of the main challenges facing the sector lies in the disparities (World Bank, 2019) and inequalities that limit equitable access and participation for women, undermining the transformative potential of higher education. This study illustrates this with its focus on the higher education sectors of four countries – Ghana, Kenya, Nigeria and South Africa. Details of the findings are discussed in later sections of this report. It is noteworthy that, as of 2022, global tertiary education enrolment has more than doubled over the past two decades, reaching levels of approximately 260 million students (OECD, 2022). In Sub-Saharan Africa, the gross enrolment ratio (GER) for tertiary education increased from 4 per cent in 2000 to 9 per cent in 2022, reflecting significant progress but still falling short of the global average. Gender disparities remain evident, with male enrolment outpacing female enrolment in nearly all the African countries. The region's Gender Parity Index (GPI) stands at 0.7. Kenya aligns with the regional average, while South Africa's GPI of 1.41 indicates higher female enrolment than male enrolment. In Ghana, the 2021 GER was 20 per cent, with a GPI of 0.9 (UNESCO Report, 2022).

4.2 Persistent challenges

Despite the enrolment successes, there are persistent challenges, including inadequate infrastructure, weak institutional capacities and underfunding (World Bank, 2019). As a result, quality and access to higher education remain uneven across the continent, with rural and newly established universities facing significant challenges compared with urban or well-established ones (UNESCO, 2021).

With regard to employability and entrepreneurship, the sector is characterised by high unemployment rates among graduates (Ozor, 2020). Universities are increasingly incorporating entrepreneurship education and employability-focused programmes. These are, however, still under-resourced and fail to meet the needs of all students, especially women. The sector has been resilient and responsive, as evidenced by the digital transformations following the Covid-19 pandemic, which accelerated the adoption of digital learning platforms (OECD, 2022). However, problems such as unequal internet access, the cost of the internet, limited digital infrastructure and limited digital literacy have created barriers, particularly for students from underprivileged backgrounds (World Bank, 2021).

This study explored the higher education sectors of Ghana, Kenya, Nigeria and South Africa, and found that although they may have some differences and variations, especially in context, size and diversity of the systems, governance, funding and other dynamics, they face rather similar challenges, and even more so in relation to the challenges facing women and female students. Most universities operate according to national frameworks with varying public and private sector involvement. They represent a blend of large, established institutions and newer, specialised ones. Nigeria's higher education sector includes federal, state and private universities, with uneven resource distribution and access challenges, particularly for rural populations. Kenya has a mix of public and private institutions, including specialised universities such as Kiriri Women's University of Science and Technology, designed to overcome gender gaps. In South Africa, the higher education system has made strides forward especially in the post-Apartheid era, with a focus on redressing historical inequalities based on a combination of traditional universities and research-intensive institutions.

Enrolment trends across the four countries show progress in women's participation, although challenges persist regarding inequitable representation, particularly in the fields of science, technology, engineering and mathematics (STEM). Ghana and South Africa have relatively higher female enrolment rates in higher education, partly due to affirmative action policies. However, women remain under-represented in leadership positions and male-dominated fields. For example, South Africa's GPI in higher education is 1.41, which indicates higher female enrolment than male enrolment. Ghana's GPI in higher education was 0.9 in 2023, indicating nearly equal enrolment between the sexes. In contrast, Nigeria's GPI stood at 0.73 in 2023, with female enrolment at approximately 44 per cent. Significant regional disparities persist in Nigeria, driven by cultural barriers and limited resources. Similarly, Kenya faces gender disparities, with a GPI of 0.71, where urban institutions exhibit better gender parity than rural areas (Global Gender Gap Index, 2024).

In some of the countries, obstacles such as early marriage and traditional expectations limit women's access to education. Women are significantly under-represented in academic leadership and decision-making positions across African universities. A study by Diab and co-workers (2024) examining 16 research-intensive African universities found that women constituted only 13 per cent of vice-chancellors, the highest executive position. Additionally, half of these universities had fewer than 30 per cent female deans, highlighting a pronounced gender gap at multiple leadership levels. The lack of representation perpetuates institutional biases and limits the implementation of gender-sensitive policies. Also, the concentration of women in the humanities and social sciences reflects long-standing stereotypes about gendered aptitudes. At the same time, the male-dominated STEM fields remain mainly inaccessible to women due to systemic and cultural barriers. According to the UNESCO Science Report (2021), one in three researchers in science globally is a woman, while in Africa, 30 per cent of science professionals are women, and female enrolment in STEM courses is increasing. The Times Higher Education 2022 report (Bothwell, et al, 2022) also found that in Sub-Saharan countries, women constitute approximately 47 per cent of STEM graduates at both undergraduate and postgraduate levels, the highest proportion globally. Despite this overall achievement, significant gender imbalances remain within specific STEM disciplines.

Of the four countries in this study, Nigeria with a population of 216 million people is a key regional player with the largest economy in Africa, primarily driven by oil. Its higher education system dates back to the colonial era, starting with Yaba Higher College in 1932. Today, Nigeria has 147 private, 52 federal and 63 state universities. It is central to national development, aimed at providing human resources, fostering societal values and boosting international understanding. Despite the expansion of higher education, quality, unemployment and gender-based inequities in employment remain major problems. The same trend is discernible in the case of Ghana, which has made significant strides in building an inclusive higher education system following the 1992 Constitution and the 2008 Educational Act, with a commitment to creating a more inclusive and equitable educational environment. Just like the other three case countries, Ghana's higher education sector faces significant gender problems, including access and female graduate unemployment. It is noteworthy that only about 3 per cent of the 300,000 graduates entering the job market annually secure formal employment.

Kenya's higher education has also expanded rapidly in recent years, guided by the country's Vision 2030 and the 2010 Constitution, which recognises the pivotal role of higher education in socio-economic transformation. By 2024, Kenya had 78 universities (public and private). Kenya is one of Africa's leaders in research and innovation, hosting some lead research centres and a vibrant technology and digitalisation ecosystem. In all four countries, the Covid-19 pandemic accelerated digital adoption in education, with ICT playing a pivotal role in research and online learning. There are partnerships and research projects regionally and internationally across the four countries to boost research efforts and help future academics. The overall narrative highlights the strides made in expanding access to higher education while resolving persisting inequalities, funding gaps and quality concerns across these four nations.

Female students continue to face challenges in accessing higher education due to socio-economic factors, cultural biases and inadequate support systems. One of the primary challenges in all four countries is the difficulty for women to access higher education. Socio-economic factors play a significant role, particularly in rural areas where resources are limited, and education is often prioritised for male children, with cultural norms that emphasise early marriage and motherhood for women, further reducing opportunities for girls to pursue higher education. Financial constraints also contribute to the gender gap in higher education. Many female students are unable to afford tuition fees and the associated costs of university education. Although scholarships and funding programmes exist, they are often limited in scope and do not adequately meet the needs of women from disadvantaged backgrounds. In Nigeria, for instance, many scholarships are competitive and favour students in fields dominated by men, further marginalising female students. The disparity in access and success in the South African case was reflected in the Fallism movement (#FeesMustFall), which amplified the continued marginalisation of poor students in higher education. Regardless of the funding opportunities provided by the National Student Financial Aid Scheme (NSFAS), many students still struggle with historical debt, which impedes their progression to the world of work if it is not settled. The triple marginalisation of gender, social class and race dominate the experiences of female students in South African higher education.

Gender inequality in higher education is compounded by socio-economic factors, cultural norms and inconsistent policy implementation. Female students often face obstacles in accessing higher education, particularly in rural areas where traditional gender roles are more pronounced. Enrolment statistics reveal a significant gender gap, with male students overwhelmingly dominating technical and professional fields such as engineering, information technology and business management. In their study on gender and enterprise development in Sub-Saharan Africa, Campos and Gassier (2017) identify a set of gender-specific constraints that affect women's entrepreneurial ventures. In these researchers' view, categories such as gender entrepreneurial intention, gender gaps in endowments and gender differences in preferences often restrict the range of economic choices women can make, thereby impeding the development of their businesses. These categories of choices or lack of choices – including level of investment, business practices, decision to compete and type of activities – considerably affect not only the decisions by women to get into entrepreneurship but also influence the chances of success of their enterprises. While the significant role of entrepreneurship has been recognised, it has yet to be integrated into most training programmes. Thus, most students graduate from university without having accessed this kind of training. The student responses in this study indicate that most students wished their training had included programme-specific entrepreneurship training, to enable them to venture into appropriate market-relevant enterprises.

As presented in Table 2, a vast majority of students from across the four case countries report being satisfied (58.2 per cent) or very satisfied (5.5 per cent) with their educational experiences, indicating overall positive opinions. While dissatisfaction is low overall (2 per cent), there are noticeable differences. Nigeria has the highest percentage of somewhat dissatisfied students (37.2 per cent), followed by Kenya (37 per cent), Ghana (34.1 per cent) and South Africa (27.4 per cent). This indicates potential areas for improvement in the educational experience. South Africa shows the highest percentage of very satisfied students (10.6 per cent), indicating a more favourable educational experience compared with the other countries. Conversely, Kenya has no respondents indicating dissatisfaction, highlighting a unique aspect of student opinion in that context, although 37 per cent of them were somewhat dissatisfied.

Table 2. Students' perception of institutional learning environments

			Dissatisfied	Somewhat dissatisfied	Satisfied	Very Satisfied	Total
Country	Kenya	n	0	125	201	12	338
		%	0.0	37.0	59.5	3.6	100.0
	Nigeria	n	18	170	249	20	457
		%	3.9	37.2	54.5	4.4	100.0
	Ghana	n	6	138	242	19	405
		%	1.5	34.1	59.8	4.7	100.0
	South Africa	n	6	83	182	32	303
		%	2.0	27.4	60.1	10.6	100.0
Total		n	30	516	874	83	1,503
		%	2.0	34.3	58.2	5.5	100.0

In nearly all the study countries, the governments have introduced initiatives such as affirmative action policies and scholarship programmes aimed at female students, particularly those from marginalised communities. However, the implementation of these initiatives has faced challenges, including inadequate funding and cultural resistance, particularly in rural areas where traditional gender norms are deeply rooted.

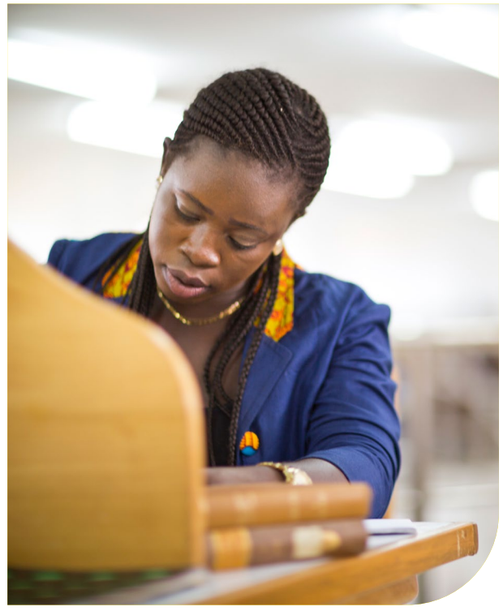
4.3 Emerging opportunities

Some African countries have made significant strides in using ICT and digitalisation in various sectors, including higher education and research. This turnaround was experienced mainly after the Covid-19 pandemic and has been a major game changer in the sector. A study by Boshoff and colleagues (2021) revealed that Ghanaian, Kenyan and South African universities have quickly adopted the use of ICT and digitalisation for research and learning after the Covid-19 experience. Generally, the pandemic pushed the universities into crisis mode, forcing them to develop adaptive strategies and innovations quickly to respond to the many consequences of the pandemic (Wachira and Ombati, 2020). Adopting these new technologies has opened up new opportunities for increased access, new modes of teaching and learning, improved governance and efficiency, together with the new and complex challenges they bring forth (Government of Kenya, 2023). The impacts of the pandemic also ushered in new shifts and unprecedented developments in education delivery, opening up opportunities for improving access to and adoption of innovative approaches, especially in teaching and learning. This and the growing demand for university education have motivated some African countries to set up open/virtual universities, which provide opportunities for students who could not otherwise access conventional universities. These developments, however, exacerbate some of the inequalities and exclusion factors, thus perpetuating the already growing barriers and challenges facing female students.

Most African universities have been compelled to adopt new ways of teaching, learning and research (Mbiydzenyuy, 2020), largely with the adoption and integration of ICT and other digital technologies. According to Koyama and associates (2021), some African countries, including the four countries in this study – led by Kenya and South Africa – are making strides in digital transformations by improving access to and internet availability for most citizens, especially within the education system. An important implication of this digital transformation is the urgent need to equip the new generation of students and the future of Africa's workforce with the competencies and skills needed for navigating the digital environment and dealing with African transformations. The new and emerging realities of work, including working from home and the new opportunities of digitalisation, are opening up new frontiers in employability and entrepreneurship.

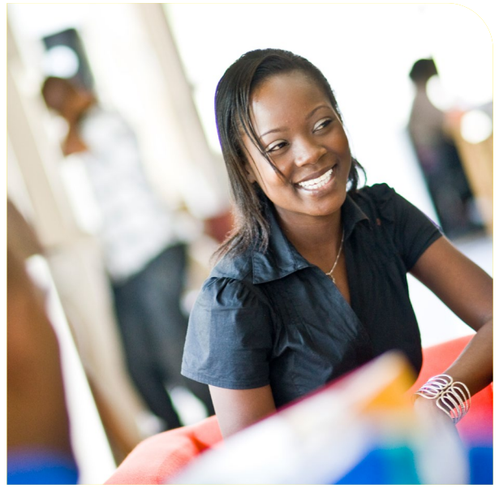
While commendable progress has been made, gaps remain in several areas. Policy implementation is a critical area, especially for progressive gender policies and for students coming from disadvantaged backgrounds, where cultural norms significantly influence the participation and success of girls. Just as in Kenya, Ghana's National Gender Policy in education emphasises the need for equal opportunities for both male and female students, and calls for capacity building and the promotion of gender-sensitive curricula. In Nigeria, the National Gender Policy advocates for gender equality in education and employment, emphasising the importance of women's inclusion in all sectors of society.

It has, however, been observed that the implementation of these policies faces numerous challenges, particularly due to regional disparities and deeply ingrained cultural norms. In regions where traditional gender roles are strictly enforced, women have limited access to education and professional opportunities, making it difficult for national policies to create significant change. The societal expectation of traditional gender roles often discourages women from pursuing higher education or entering fields that are perceived as being male-dominated. Female students continue to face challenges related to access to funding, inadequate mentorship and the inadequate implementation of gender-responsive policies within academic institutions. In addition to policies, the study makes recommendations for several interventions to overcome gender difficulties, especially the barriers that female students and women encounter in their pursuit of employability and entrepreneurship opportunities.



5 Challenges and barriers to entrepreneurship opportunities

In several African countries, entrepreneurship has been recognised as one of the most important ways of dealing with unemployment challenges. As discussed in the previous sections, most Sub-Saharan African countries have embraced entrepreneurship due to its potential in social and economic transformations. In recognition of the centrality of entrepreneurship to the enablement of women, the African Development Bank's African Women In Business Initiative (AWIB) supports women entrepreneurs, in particular small and medium-sized enterprises (SMEs) by better access to funding and finances (British Council, n.d.). The AWIB has several initiatives aimed at the creation of enabling environments and the promotion of women entrepreneurial developments, together with reinforcement of business support provision. These initiatives further focus on strengthening the institutional and technical capacities of national business women associations that support the emergence and growth of women-owned SMEs. The AWIB also supports the development of concrete forms of support for enterprise education and entrepreneurship development. Of particular importance is the assessment of the feasibility of creating an African Training Institute Hub for women entrepreneurs, aimed at information and knowledge-sharing.



The British Council (2020b) report 'Developing skills programming through a gender lens' notes that women and men live different economic and social lives. As a result, women are mainly concentrated in unpaid and low-paid work. This therefore calls for a departure from gender neutral policies that are less sensitive to the different roles, experiences, rights and activities of women and men that inform varied lived experiences.

In all four case countries, there is concurrence on the critical role of higher education institutions in support of entrepreneurship. As demonstrated by this study, most of the universities face challenges in promoting entrepreneurship for women. They face challenges in entrepreneurship training and inadequate supportive environments for prospective student entrepreneurs. There is growing recognition that fostering entrepreneurial competencies is critical for meeting the current labour market demands and the realities of youth unemployment (Pardo-Garcia et al., 2020). The four case countries in this study have incorporated entrepreneurship education, hubs and clinics into their goals and practices.

In Kenya, the government has recognised the essence of entrepreneurship education (Otuya et al., 2013) and is entrenching it throughout the education system, including at university level. Kenya views entrepreneurship as strategic for its economic growth. It further recognises the necessity of entrepreneurship education for female university students (Nteere, 2013) and the need to establish support systems, such as incubation centres, mentorship programmes, partnerships with industry and access to financing (Karanja et al., 2016). Kubasu and Ayuo (2014) view entrepreneurship training and practices among Kenyan students as being influenced by various factors, including gender, entrepreneurial parents, subjective (biased) norms, perceived behaviour control, and a supportive environment and academic support.

In the same vein, Nigeria recognises that women's entrepreneurship is important for fuelling economic growth, job creation and improving quality of life. The survival of women-owned businesses has thus become a critical topic for advancing women's economic and gender equality. It is important to look at entrepreneurship from a gender perspective, to identify the constraints, challenges and even some of the enablers, drivers and coping strategies that women have to deploy in entrepreneurship (Martinez Dy and Marlow, 2017; McMullen and Warnick, 2016; Nwachukwu et al., 2021).

The study, however, notes several gaps and challenges in entrepreneurship training and inadequate supportive environments for prospective student entrepreneurs. It is thus imperative for universities to deliberately integrate entrepreneurial education and training as a critical part of their academic programmes according to Mwiti and Ngwiri (2021). Due to a lack of support, especially in accessing Start-up funds, only a few graduates start small-scale enterprises, despite the acute unemployment crisis (Binyanya, et al., 2022). This is made more difficult when employers also demand that graduates can demonstrate employability skills, underscoring the importance of these skills for securing employment (Kalei, 2015). The female students grapple with numerous challenges in their attempts to get support in undertaking business/entrepreneurship ventures. Over half of the students sampled across the four participating countries reported that they were not involved in entrepreneurship activities. As demonstrated in Table 3, Nigeria had the highest number of students 199 (43.8 per cent) involved in entrepreneurship activities, while South Africa had the least.

Table 3. Students' involvement in entrepreneurship activities

			Involvement in entrepreneurship activities		Total
			Yes	No	
Country	Kenya	n	112	223	335
		%	33.4	66.6	100.0
	Nigeria	n	199	255	454
		%	43.8	56.2	100.0
	Ghana	n	161	244	405
		%	39.8	60.2	100.0
	South Africa	n	55	246	301
		%	18.3	81.7	100.0
Total		n	527	968	1,495
		%	35.3	64.7	100.0

The results shown in Table 3 indicate that students are not particularly involved in entrepreneurship activities, and the rates are even lower for female students. Interestingly, most students remained neutral as to whether gender stereotypes and social norms have an impact on the participation of female students in entrepreneurship activities, while a significant minority acknowledged the impact of societal norms, cultural biases and gender-related obstacles in securing funding and investment. Moreover, disparities in mentorship, support and the availability of female entrepreneurs further underscore women's challenges in these institutions. The findings indicate that gender continues to play a role in shaping entrepreneurial opportunities, with cultural and societal factors also contributing to these inequalities.

Evidence from the interviews also corroborated the growing importance of entrepreneurship as part of university training and its being considered a fundamental competence. The study cites several instances of universities offering specialised entrepreneurship programmes for both undergraduate and postgraduate students, with some particularly for female students. The survey highlights persistent gender-based inequalities in access to entrepreneurship opportunities at universities. While many students either remain neutral or disagree about the influence of gender stereotypes on hiring and professional development, some acknowledge the impact of societal norms, cultural biases and gender-related obstacles in securing funding and investment. Disparities in mentorship, support and the number of female entrepreneurs further underscore women's challenges in these institutions. Despite some disagreement, these findings indicate that gender continues to play a role in shaping entrepreneurial opportunities, with cultural and societal factors also contributing to these inequalities.

The study notes that female students often lack confidence in pursuing entrepreneurial ventures due to inadequate training, limited mentorship, financial constraints and the impact of societal norms, which continue to play a significant role in discouraging women from exploring non-traditional career paths, including entrepreneurship. Women from all four countries face significant hurdles when venturing into entrepreneurship. Access to capital is one of the most critical barriers, with financial institutions often reluctant to provide loans to female entrepreneurs, viewing them as higher-risk candidates due to societal stereotypes and the lack of assets required as collateral. This is illustrated in the case of Nigeria, where women face stringent challenges in securing funding, partly due to cultural norms that view business leadership as a male prerogative. Female entrepreneurs also struggle to gain access to markets, professional networks and business development services. Mentorship and training programmes are often less accessible to women, limiting their ability to grow their businesses and compete in the market. In Kenya, there are a few upcoming programmes aimed at supporting female entrepreneurs, but their reach and effectiveness remain limited.

It is thus significant that most of the universities are adopting best practices to enable them to support women's entrepreneurship. These interventions include training, university links with the private sector, access to financing and incubation centres. Some universities are introducing initiatives and innovations to strengthen entrepreneurship among their students. The University of the Witwatersrand in South Africa hosts an entrepreneurship clinic that aims at developing and mentoring aspiring young entrepreneurs who will be future job creators in South Africa. Part of the Research Division of the University of KwaZulu-Natal includes InQubate, which has developed an Entrepreneurship Skills Programme called ENSPIRE. Its goal is to equip the university's students with entrepreneurial skills at a practical level.

Kenya has taken a similar multistakeholder approach to that of South Africa compared with the other two cases. The literature and interviews with the university stakeholders showed that nearly all the universities had established entrepreneurship training programmes. This approach demonstrates the recognition of alternative ways of preparing young people for the uncertain future world of work, as well as preparing them for entrepreneurship and self-employment. Dedan Kimathi University has established a Centre for Innovation and Entrepreneurship Management to nurture and develop student innovations and Start-ups, and to resolve the challenges of employability and entrepreneurship.

Exposing students to international competitions helps to sharpen their ideas, as was demonstrated by the University of Mpumalanga. Collaborations between communities and higher education institutions is important for sharing and exchanging skills and ideas. Finally, interventions such as work-integrated learning (WIL) and the Isivande Women's Fund (IWF) provided by the South African Department of Trade and Industry (DTI) assist women entrepreneurs by means of various programmes that boost small enterprises, industry innovation and human resource development.

Kenya has also recognised entrepreneurship as an alternative way of preparing young people for the uncertain future world of work and for entrepreneurship. In the same vein, Dedan Kimathi University has established a Centre for Innovation and Entrepreneurship Management to nurture and develop student innovations and startups. The centre aims to address the challenges of employability and entrepreneurship. The literature review found that some Kenyan universities, such as Strathmore University, Riara University, United States International University, Kenyatta University and Egerton University, had begun to establish strong relations with the private sector. The findings from the Kenyan case agree with the British Council (2020a) report 'Accelerating women's employability through social entrepreneurship: the case of Mombasa'.

The report concluded that although there is positive political will and there are several programmes and initiatives by state and non-state actors which support social enterprises, female entrepreneurs still encounter barriers, such as lack of training, skills and knowledge; lack of funding; unhelpful and hostile regulations; inadequate or non-existent support structures; and a lack of awareness about social enterprise and innovation among policymakers, private sector players and social entrepreneurs themselves.

Female entrepreneurs also face the challenges of infrastructural deficiencies, corruption, low access to and high cost of finance, and weak institutions. They also encounter deep-rooted discriminatory socio-cultural norms, which further widen the gap in entrepreneurship between men and women, as women are believed to have a lower propensity for entrepreneurship compared with their male counterparts (Amaechi, 2016; Richardson, 2017). Female students in Nigerian universities seem to encounter similar challenges in pursuit of entrepreneurship opportunities. Even after some exposure to entrepreneurship education, most graduates still find it difficult to secure the support needed to start their own businesses. Focus group discussions revealed that some of the main challenges facing the female students included lack of funding opportunities for Start-ups, entrenched cultural/societal norms that do not support female entrepreneurs, limited access to mentorship opportunities, poor businesses environments and fast-paced change.

Just as in the other three countries, the case of South Africa also shows that entrepreneurship is important for women's economic enablement. However, South African women tend to be more involved in business activities at the micro and survival levels, such as crafts, hawking, personal services and the retail sector. They also face marginalisation and barriers to participation in entrepreneurship (Farrington et al., 2012). Some of the challenges include lack of education and training, lack of access to finance, gender discrimination, negative attitudes towards women and inadequate resources (Chinomona and Maziriri, 2015). This is even worse for black women entrepreneurs, who are the majority in the field. Their access to funding remains a big impediment to their progress (Witbooi and Ukpere, 2011). Another study found that female entrepreneurs in the learner transport industry face several challenges associated with high operational costs, sexism in a male-dominated industry, being disrespected or undermined by customers, a lack of trust and commitment, and a lack of opportunity awareness (Mulaudzi and Schachtebeck, 2022).

South Africa, however, has introduced some innovative initiatives that could be useful for other African universities. These include the innovation and entrepreneurship hubs/clinics that have assisted students to incubate and innovate their ideas at the University of the Witwatersrand, the University of Mpumalanga, the University of KwaZulu-Natal and the University of Venda, among others. The University of the Witwatersrand's entrepreneurship clinic is open to helping students in shaping and accelerating their business ideas. The universities are also spearheading partnerships with industry, which plays an important role in championing innovation. An example is the Wits Innovation Centre (WIC), which helps with access to innovation grants and funding, and aids in harnessing resources for the commercialisation of research. Other interventions such as WIL and the IWF provided by the DTI assist women entrepreneurs with various programmes that boost small enterprises, industry innovation and human resource development.

Table 4. Satisfaction with institutional support services

			Satisfaction with support services					Total
			very dissatisfied	Dissatisfied	Neutral	Satisfied	Very satisfied	
Country	Kenya	n	0	19	136	148	23	326
		%	0.0	5.8	41.7	45.4	7.1	100.0
	Nigeria	n	7	45	210	132	14	408
		%	1.7	11.0	51.5	32.4	3.4	100.0
	Ghana	n	2	42	236	103	10	393
		%	0.5	10.7	60.1	26.2	2.5	100.0
	South Africa	n	2	15	148	101	18	284
		%	0.7	5.3	52.1	35.6	6.3	100.0
Total		n	11	121	730	484	65	1,411
		%	0.8	8.6	51.7	34.3	4.6	100.0

As shown in Table 4, it is of note that across all four countries, 51.7 per cent of respondents are neutral regarding their satisfaction with the support services in their institution, while 34.3 per cent are satisfied and 4.6 per cent are very satisfied. A combined 9.4 per cent report dissatisfaction (dissatisfied and very dissatisfied). The significant chi-square result ($p < 0.05$) confirms that the differences in satisfaction levels among the countries are relevant, indicating the need for country-specific analyses to understand the underlying factors influencing student satisfaction with the support services they receive. The findings underscore the importance of improving support services to raise student satisfaction levels. Further qualitative research could provide deeper insights into specific areas of improvement and the effectiveness of the current support services in each country.

Although South Africa seems to be leading in these innovations and best practices and has developed progressive policies, the implementation of policies remains a big challenge and is complex and fluid. It faces obstacles such as limited resources, the requisite skilled personnel to implement them and the timely appraisal of existing policies, and communication of changes to existing policies. The survey data revealed that funding is a major impediment, and that funding mechanisms must be put in place to support students who want to venture into entrepreneurship. This is supported by the reviewed literature (Witbooi and Ukpere, 2011). A lot of emphasis is not put on entrepreneurship, because most of the South African higher education institutions are traditional. They focus on graduating students to attract government subsidies. Therefore, entrepreneurship seems to be a secondary objective. Additionally, load shedding and water shedding were viewed as emerging threats/challenges for student businesses that rely on electricity and water (e.g. hair dressing and online tutoring). The students pointed out the high cost of the internet and unstable connectivity for online businesses as a major hindrance. Other respondents noted that limited skills and knowledge of how to set up online businesses were drawbacks to their entrepreneurship dreams. Lastly, there is a lack of clarity between entrepreneurship and innovation. Institutional leaders and students suggested that a lot may be happening at universities under the science and innovation label that is not being reported as entrepreneurship, but rather as science, technology and innovation.

The Ghana case also demonstrates significant progress in the promotion of gender equality and women's enablement, particularly in girls' education, but challenges still remain. Regional disparities persist, and despite more women acquiring the education necessary to enter the workforce, the proportion of women advancing into self-employment, management, entrepreneurship and leadership roles remains insufficient (Nyukorong, 2022; Takyi et al., 2021). Recent difficulties regarding

employability in Ghana have focused on preparing students for specific job roles, often overlooking the intersection of employability and entrepreneurship. However, there is growing recognition that fostering entrepreneurial competencies – such as creativity, proactivity and risk management – is critical for meeting the current labour market demands and the realities of youth unemployment (Pardo-Garcia et al., 2020). In recent years, this shift has gained traction, and research on integrating employability and entrepreneurship within higher education has increased globally, although its practical application in Ghana still requires attention (Santos-Jaén et al., 2022). Higher education institutions in Ghana are prioritising the development of entrepreneurial competencies among graduates to better align with the evolving needs of the labour market, and to encourage young people to create their own economic opportunities in an environment where formal employment remains limited.

Policies introduced by the South African government since the onset of democracy have sought to support women's economic enablement. These policy documents include the Promotion of Equality and Prevention of Unfair Discrimination Act, the Basic Conditions of Employment Act and South Africa's National Policy Framework for Women's Empowerment and Gender Equality, which have been legislated to encourage participation and financial inclusion for women. These policy documents form part of the Women's Financial Inclusion Framework, which seeks to accelerate women's socio-economic inclusion in the public and private sectors (Commission for Gender Equality, 2020).

In 2007, the South African DTI launched an initiative called the Strategic Framework on Gender and Women's Economic Development. This strategy was aimed at driving women's entrepreneurship with initiatives such as the establishment of a national women's fund, the mobilisation and strengthening of

South African women in business, entrepreneurial education, training and development (Department of Women, Youth and Persons with Disabilities, 2015). The DTI also provides financial assistance and incentive programmes to women by way of the Small Enterprise Development Agency Technology Programme, the Support Programme for Industrial Innovation, the Technology and Human Resources for Industry Programme and the IWF. At the institutional level, entrepreneurship has been incorporated into some courses, such as the Bachelor of Commerce and the Bachelor of Business Administration and Management as a learning area. Incubation hubs and clinics offer the necessary support for students' business ideas. Additionally, despite the push for entrepreneurship, students feel uncertain about translating these skills into successful ventures, indicating gaps in the practical application of entrepreneurship education. There is an evident need for gender-sensitive entrepreneurship education, as many students lack confidence in their entrepreneurial skills.

Socio-cultural barriers, societal norms and expectations play a significant role in limiting women's educational prospects. Gender stereotypes often dictate traditional roles for women, emphasising domestic responsibilities over academic pursuits. This contributes to lower enrolment and higher dropout rates for women in universities. Cultural norms and societal expectations significantly affect the choices and opportunities available to female students. In all four countries, societal pressure often discourages women from pursuing fields considered to be male-dominated, such as engineering, technology and business. Women who defy these norms may face stigma and lack support from their families and communities. In Nigeria, gender stereotypes persist in both educational institutions and workplaces, contributing to the under-representation of women in technical and leadership roles. This societal bias extends to entrepreneurship, where women are less likely to be viewed as competent business leaders. In Ghana, similar cultural attitudes limit women's participation in fields such as science and technology, despite governmental efforts to encourage gender equality. Women in all four study countries face significant hurdles in starting and sustaining their businesses, with access to Start-up capital and inadequate business skills being some of the critical challenges discouraging women from active participation and taking on leadership roles in business.

The literature and interviews with the university stakeholders showed that nearly all the universities had established entrepreneurship training. This approach demonstrates the recognition of alternative ways of preparing young people for the uncertain future world of work and also preparing them for entrepreneurship and self-employment. In particular, the policy landscape is changing to overcome the challenges and barriers experienced by female students. Forward-looking policies exist at national and institutional levels. However, their implementation is challenging for various reasons. These efforts aim to bridge the gap between academic preparation and industry needs, emphasising practical exposure and sector-specific training. Additionally, academia-public-private partnerships provide forums for presenting innovations and engaging with industry, offering students entrepreneurial opportunities. Emerging practices, such as training in entrepreneurship, policy reforms, university-industry links and establishing incubation centres, signal positive strides forward. For instance, Dedan Kimathi University's Centre for Innovation and Entrepreneurship Management and Kenyatta University's Chandaria Business and Innovation Centre are notable examples of fostering employability and innovation. Strategic partnerships, such as the AFRETEC network and collaborations with the private sector, further boost capacity building, networking and intellectual property protection.

Despite these advancements, challenges such as inadequate financing and problems with digital access persist and exacerbate the barriers and challenges faced by women in higher education systems. While government initiatives and university-specific funding programmes are helping students to access Start-up capital, more are still needed. Investments in ICT and digitalisation show potential for transformation, but these efforts need scaling to ensure students benefit fully from technological advancements.

6 Challenges and barriers to employability opportunities

Higher education occupies a significant place in the development of any nation, with one expectation being its role in developing the required human resources for national development. According to the British Council (2022b), higher education can have differing and sometimes conflicting impacts. It can be a vehicle for both perpetuating and challenging gender inequalities as a result of its enacted policies, skewed power relations, and social norms and attitudes. It can also achieve fairer access to resources and discourse, as well as building capacity for collective actions. The rapid expansion of the higher education sector in most African countries has led to the production of more young graduates than the national labour markets can absorb. As a result, most African countries are experiencing growing graduate unemployment and underemployment. This situation is glaringly obvious across all the four countries in this study – Ghana, Kenya, Nigeria and South Africa. It should be further noted that most of the graduates produced by the universities do not have the necessary skills required by the labour market.

This study shows a growing mismatch between the training offered in the higher education institutions and the needs of employers, leading to high unemployment rates, as seen in all the country cases and especially in the cases of Ghana and Nigeria. For example, in Ghana, just 10 per cent of university graduates find jobs in the public sector, whereas an estimated 110,000 graduates enter the job market annually. The unemployment rate stands at 14.7 per cent, with young people and female graduates experiencing the greatest levels (almost 30 per cent) of unemployment. In Nigeria, the unemployment rate stands at 33 per cent, while in Kenya youth unemployment is reported to be at around 25 per cent and in South Africa at about 33.5 per cent. This is also due to lack of confidence and adequate understanding of the labour market by the young graduates. The existing literature provides insights into gender-based differences in self-employment preferences, perceptions of employability and the impact of demographic characteristics on job results.

6.1 Growing unemployment

In Nigeria, the unemployment rate among young graduates is 8 per cent (National Bureau of Statistics, 2023). The situation seems even grimmer in Kenya, where the International Labour Organization estimated the combined rate of underemployment and unemployment at around 31.5 per cent (42.4 per cent among women and 23.4 per cent among men). Compared with the other three countries, the South African context appears to have a better outlook, because concerns revolve around unemployability rather than unemployment. The South African case demonstrates that the socio-economic situation, context and market demands significantly influence students' choice of study, often leading them to switch fields to align with perceived employment opportunities. It is of note, for instance, that medical and education graduates are in high demand for employment by the government, whereas graduates in other fields face challenges in securing employment opportunities. It should also be noted that South Africa differs in that it has a middle-income economy and a bigger labour market and industrial sector compared with the other three countries.

The South African case, however, brings out the dynamic of race in gender barriers and access to opportunities for employability, further nuancing our intersectional approach to employability. Higher education is recognised as playing a significant role in employability opportunities in all four countries. For example, higher education institutions in Ghana are encouraged to integrate entrepreneurial competencies – such as creativity, proactivity and risk management – into their curricula, to better prepare graduates for labour market realities. Also, employability is considered to be a critical dimension of higher education quality in Kenya, emphasising the responsibility of universities in preparing graduates for the workforce. Priority is given to practical learning and entrepreneurship education in Kenyan universities to foster employability and reduce unemployment among graduates.

6.2 Inadequate policies and frameworks

All the four countries under study recognise the importance of government policies in fostering employability, not only for graduate students but for the entire nation. In recognition of this, the four countries in this study have put in place policies for their labour market and employment sectors. South Africa has developed policies such as the Employment Equity Act of 1998 to redress marginalisation caused by previous policies, ensure equitable representation across occupational categories and levels in the workforce, and promote equal opportunities, fair treatment and affirmative action policies for designated groups. The Sector Education and Training Authorities (SETAs), established under the Skills Development Act of 1998, are significant in developing Sector Skills Plans, which have contributed to the development of the National Skills Development Strategy (NSDS) and make WIL possible by links with industries/private sectors. The Skills Development Levy (SDL) is currently focusing on funding work-based learning initiatives such as learnerships and WIL platforms aligning with the needs of various sectors. However, Ghana, Kenya and Nigeria may lack such comparable widespread financial mechanisms.

In all the study countries, there are policies that aim to deal with gender disparities and improve employability among female undergraduate students. Examples of such recent initiatives include the recent Economic Recovery and Growth Plan (ERGP) 2017–2020 in Nigeria (Anam, et al. 2024), which aims at long-term inclusive growth from structural economic change, focusing on public and private sector efficiency to increase productivity and economy diversity. It seeks to lay firm foundations for future generations by helping young Nigerians to lead the country's prosperity, recognising the development of human resources via education, including tertiary education, as an important pathway to realising the plan objectives. Importantly, South Africa appears to pay more attention to soft skills as essential for adapting to technological advancements and workplace transitions, while Nigeria, Ghana and Kenya prioritise technical and entrepreneurial skills. These varied approaches contribute to dealing with gender disparities and improving employability in their different contexts.

While policies aimed at promoting gender equality exist in all the four countries included in this study, there are evident gaps in their implementation which undermine their effectiveness. In Kenya, for example, affirmative action policies that reserve university slots for female students in certain fields have had some impact on the gender dynamics in the universities, but they are not sufficient. In Ghana, the National Gender Policy in education emphasises equal opportunities for women. However, societal norms continue to restrict women's choices, particularly in higher education and employment. The same situation is discernible in Nigeria, where the National Gender Policy advocates for the inclusion of women in all sectors, yet enforcement is inconsistent. However, gender-responsive policies at the institutional level are either poorly defined or lack the necessary resources for implementation. This inconsistency contributes to the persistence of gender disparities in both education and the labour market.

Despite Nigeria's National Gender Policy, which emphasises the need for gender equality in education and employment, the country struggles with translating these principles into practice. The lack of gender-responsive policies at the institutional level further exacerbates this difficulty. Female students face barriers in securing scholarships, accessing quality education and obtaining mentorship, which limit their ability to excel in their academic and professional pursuits. It has, however, been noted that some of these policies and affirmative action initiatives have not only given women an edge in access to higher education but also in employment opportunities. For instance, men who apply to work in the foundation phase of the education sector are denied the opportunity because this is thought to be a better fit for women.

6.3 Societal norms and structural inequalities

Societal norms and structural inequalities pose various challenges to women in their pursuit of employment opportunities. Some societal norms discourage them from pursuing certain fields and accessing mentorship opportunities, limiting their employability potential. South Africa reports high numbers of cases of gender-based violence associated with hegemonic and toxic masculinity. The unequal relationship between men and women stifles the gains that have been achieved with gender equality policies and advocacies. Based on the survey results and the interviews, several female students felt that the gender-inclusive programmes and career opportunities provided by universities in Ghana are insufficient or unevenly implemented, and have not adequately supported them in facing the challenges of the world of work. Crucial to achieving gender equity in employment opportunities are support systems such as affirmative action initiatives, mentorship programmes and training on gender-sensitive problems.

In response to these inequalities, there are efforts to develop national entrepreneurship education policies with dedicated funding to help female graduates and support entrepreneurial initiatives across the four countries. In Ghana, the study demonstrates that male tertiary graduates prefer self-employment compared with their female counterparts, who are more inclined to seek employment in public or private organisations than to pursue entrepreneurial ventures. In addition, the study shows that female students still face gender-specific obstacles when seeking internships and employment opportunities, despite the general perception of progress regarding gender inclusion in Ghana.

Similarly, Kenyan respondents reported that female graduates, especially those from disadvantaged backgrounds, are more likely to face significant challenges in securing employment due to societal norms and stereotypes, which also influence their access to networks and resources that will help them succeed in their pursuit of employment opportunities. The same scenario is rather similar in the Nigerian case, where such norms and stereotypes have been predominant especially in the northern regions. The support services for female students established by some universities have proved quite useful. Some of the institutions have established gender resource centres that offer support services for female students, including access to scholarships, mental health counselling and advice on navigating gender-based challenges in academia.

6.4 Building capacities and skills for employability

It is important for higher education institutions to prepare graduates for employment. Pitan et al (2023) observed that adopting strategies such as experiential learning and career guidance activities can equip students with transferable skills that can boost their preparedness for the volatile labour market. Students in a study by Julien and associates (2023) stated that their current university courses were important for developing crucial work skills and attributes. Volunteering and further study were seen as avenues to continue the development of such skills and attributes.

There have been attempts at several strategies to raise graduate employability and employment opportunities, including emphasising entrepreneurial mindsets among students, especially in the field of technical and vocational education. Critical for

raising employability levels is also the need to bridge the existing gap between the skills needed for the labour market and the content of the university student curricula. Initiatives such as Kenya's Women's Economic Empowerment Hub have been established to gather evidence and support strategies for helping women economically. Similarly, Nigeria and South Africa report a mismatch between higher education learning and workplace skills. All the countries are making efforts to ensure that universities produce graduates who possess the required workplace skills.

In Ghana, Nigeria and Kenya, universities are making entrepreneurship compulsory for undergraduate students to equip them with employability skills. Our respondents stated that universities in Ghana are emphasising entrepreneurship as a fundamental competence. This has resulted in Ghanaian universities making entrepreneurship compulsory for undergraduate students. This move aims to equip them with the skills and competences that will improve their employability rate. There are also programmes in some universities in Ghana that support female students in Start-up funding endeavours. Similarly, some universities in Kenya are reportedly training students on ways to navigate the world of work. They also provide access to information on possible employment opportunities. Universities in Kenya provide opportunities to participate in work-study placements and internships to enrich university-industry links. Networking opportunities in the industry/private sector for Kenyan undergraduate students have also been described. Some universities in Kenya are reportedly building strong links with industry and the private sector, in which students are immersed in experiences that equip them with the skills, aptitudes and competences necessary for the world of work. There are also reports of universities providing training on how students can navigate the world of work and supplying students with information on employment opportunities.

In Nigeria, there are also university-level interventions centred on integrating entrepreneurship education into university curricula using the following practical strategies: career development and linking units (e.g. at Nnamdi Azikiwe University, Pan-Atlantic University, University of Ibadan); innovation incubation centres and ICT hubs (e.g. Chike Okoli Entrepreneurship Centre at Nnamdi Azikiwe University, ICT Innovation Park at University of Port Harcourt); specialised programmes at the University of Benin (e.g. Opolo Global Innovation Hub, digital skills training, hackathons). Some universities have partnered with private sector organisations to set up incubation centres that provide valuable resources and opportunities for students. Universities collaborate with employers by means of the Student Industrial Work Experience Scheme (SIWES), internship opportunities and teaching practice programmes.

A university in southwestern Nigeria offers an employability improvement scheme for female students, including resilience-building counselling, training on creating compelling curriculum vitae (CVs) and ensuring that internships provide worthwhile work experience for CV enrichment. Some Nigerian institutions emphasise practice-based learning, interactive training, mentorship and professional engagement as critical for employability preparation. By contrast, the South African case demonstrates that most universities focus on generic skills, whereas universities of technology focus on workplace skills. Universities of technology put emphasis on vocational learning to produce skilled, work-ready graduates. For example, WIL is an innovative approach adopted by the universities of technology aimed at bridging the gap between education and employment. Work-integrated learning includes various initiatives such as service learning, cooperative education and community-based research, aligning curricula with industry needs. Universities in South Africa reportedly have links with industry, affording them the opportunity to understand the skills needed especially in the education sector. Universities in South Africa are reportedly making informed decisions based on their links with industry and the private sector.

However, current efforts in Nigerian universities to enhance employability, particularly for female students, are insufficient, requiring advancements aimed at overcoming gender disparities in the labour market. University leaders reported that there are only weak links between Nigerian universities and industries/private sectors, constituting barriers to graduate employability. Most employability programmes in Nigerian universities focus on the general student population, with limited focus on gender-specific initiatives. Critical strategies such as mentorship schemes for career opportunities for female students are limited due to cultural norms and expectations, which hamper their employability skills.

The link between entrepreneurship education and employability is well established in Ghana. However, studies indicate that female students are often less confident about their employability, despite being aware of job market requirements. Factors such as societal norms, limited financial support and lack of mentorship hinder women's participation in entrepreneurship. Many female students prefer employment in the public or private sector over self-employment, highlighting a need for improved entrepreneurial training and supportive university environments.

6.5 Affirmative actions

Affirmative action schemes promote substantive access to equal opportunities in society. Nigerian universities are introducing affirmative action policies to combat gender imbalances, particularly in leadership roles and in the fields of science, technology, engineering and mathematics (STEM). While progress has been slow, there is increasing advocacy for formalising these policies to create more gender-inclusive environments. Ghana has started implementing affirmative action policies in some universities, in particular to increase the number of women in senior academic roles and encourage women to pursue non-traditional fields of study. However, these policies are still in their early stages, and there is a need for more consistent enforcement and monitoring. Affirmative action measures have been introduced in many universities, in particular in student admissions and faculty recruitment, to overcome gender disparities. Kenyan universities are required to meet certain gender parity objectives, and many have established gender offices to ensure compliance with these policies. South African university admissions policies aim to redress historical legacies. Therefore, admissions policies and recruitment policies are based on predetermined gender and race quotas.

6.6 Transition to the world of work

Universities are increasingly under pressure to produce employable graduates. However, the world of rapidly changing information and knowledge makes it hard to determine fundamental graduate attributes. The transition from education to employment presents additional challenges for female graduates. Employers in Kenya, Ghana and Nigeria seem to exhibit gender biases, preferring male candidates for technical, managerial and leadership roles. This bias is partly due to stereotypes that question women's abilities to perform in high-pressure, competitive environments. As a result, female graduates face higher rates of unemployment or underemployment compared with their male counterparts. In addition, networking opportunities are often limited for women. Professional networks in these countries are predominantly male, making it difficult for female graduates to establish connections that can help in securing employment. In Ghana, for example, women report facing difficulties in accessing internship and job placement programmes, which are crucial for gaining work experience and building a professional network.

The interviews with the female students generally showed that they do not feel adequately prepared for the labour market. They expressed the need to expose themselves to practical skills and industry-relevant training, to enable them to gain the skills and experiences needed to navigate the complexities of the transition to the labour market. In the case of Ghana, the female students confirmed some levels of awareness of the labour market, but they did not have the confidence to pursue employability opportunities due to the competitiveness, skills and experience required. They also cited some gender biases in recruitment and workplace discrimination, which caused further challenges in transiting to the labour market. Most found it easier to enter public sector employment compared with venturing into the competitive private sector.

6.7 Digitalisation and ICT

The digital gender divide is an emerging problem, with women facing greater challenges in accessing technology and digital resources compared with men. This limits their ability to participate fully in digital learning. Efforts are being made to improve digital literacy among female students, but more investment is needed in infrastructure and digital training. In Ghana, the digital gender divide also affects women's participation in higher education. Universities are recognising the need to address this gap by introducing digital skills training and initiatives, to ensure that women have equal access to online resources. Recent developments include partnerships with tech organisations to improve digital literacy among female students and faculty. Kenya is seeing a significant push to bridge the digital gender gap in universities, with a focus on increasing women's access to technology and internet connectivity. Several universities are implementing programmes aimed at improving women's digital skills, particularly in STEM fields. There is growing interest in women's participation in tech-driven fields, such as data science, artificial intelligence and digital entrepreneurship, which could help to close the gender gap. Telecentres have been established across rural areas in South Africa to help women, reduce poverty and unemployment. Despite these interventions, barriers such as lack of computer skills, education, language, gender usage patterns, unemployment and lack of awareness must be overcome for women to benefit fully from the telecentres.

6.8 Collaborations with the private sector and development partners

Collaboration between higher education institutions, the private sector and international development partners can create more opportunities for employability for female students and graduates. Companies can partner with universities to provide internships, mentorship schemes and networking opportunities for women. By working with the private sector, universities can align their training programmes with market demands, increasing female graduates' employability and entrepreneurial potential. The study has identified a number of private organisations and international development partners supporting women-led enterprises and offering training to boost the employability and entrepreneurship skills of young women. They also help to overcome gender disparities by providing economic opportunities.

The role of the private sector in building technical skills with initiatives such as incubation hubs, networking opportunities and business acceleration programmes, which are aimed at female graduates and aspiring entrepreneurs, is also illustrated across the four countries. Companies in these countries engage in corporate social responsibility initiatives that focus on promoting gender equality by supporting marginalised groups, offering grants and creating enabling environments for women in leadership. These collaborations are critical for advancing gender equality and equipping women with the skills and resources needed to succeed. International partnerships and collaborations are also crucial for fostering innovation and entrepreneurship, and preparing students for employability. For instance, the British Council-funded Innovation for African Universities (IAU) programme has enabled KCA University to partner with entrepreneurship training, aid transition to the world of work and support faculty exchanges.

6.9 Gender-based violence and sexual harassment

Sexual harassment and gender-based violence (GBV) are significant problems in universities across the four countries. Morley (2011) describes the devastation of cultures of sexual harassment as follows.

Cultures of sexual harassment function in myriad ways to undermine and destabilise women and keep them in positions of fear and powerlessness. Sexual harassment, like other forms of gender violence, is an attack on the mind as well as the body. Widening participation strategies need to incorporate an understanding of access to what? (p.108)

Several high-profile cases have brought attention to the pervasive nature of harassment in academia, with female students and staff facing intimidation from male colleagues and professors. Recent developments include calls for stricter laws and institutional reforms to prevent harassment. Universities are under increasing pressure to adopt and enforce anti-harassment policies. As in Nigeria, sexual harassment remains a serious problem in Ghanaian universities. Advocacy groups and civil society organisations have been pushing for reforms, and some universities have developed stronger policies and set up gender desks to resolve complaints. Student activism is growing, with female students demanding accountability from institutions regarding GBV and harassment. In Kenya, GBV and sexual harassment are also major concerns. Recent efforts have focused on creating safe spaces for women in academia and enforcing policies on GBV. Universities have introduced hotlines, support systems and mandatory reporting procedures, although implementation remains inconsistent. There is a continuing push for universities to adopt stricter anti-harassment policies and provide gender-sensitive training for staff and students. Due to the insidious nature of GBV and the stigma attached to it, many female students do not report violations. South Africa has very high levels of GBV, femicide and crime. The higher education sector, as a microcosm of society, exhibits a similar pattern, with a high prevalence of cases of GBV, rape and femicide on campuses. Studies have shown that most of these cases are perpetrated by men (Buqa, 2022). Femicide was thought to be caused by factors that include cultural norms, women's position in society and their natural vulnerabilities, substance abuse, unfaithfulness and women's commodification. Calls have been made to change general mentalities, introduce harsher sentences and penalties against perpetrators, and improve security on campuses to reduce GBV and femicide in higher education institutions.

6.10 Representation and leadership in academia

While women are gaining more access to higher education, female leadership in academia remains limited. Women are still under-represented in senior academic and administrative positions, and there are few female university vice-chancellors. The few who are in leadership positions encounter glass ceilings and revolving doors. Entrenched institutional and systemic barriers, sexism and patriarchy affect women's progression in leadership, as well as the successful execution of their roles and duties. The gender gap relating to remuneration and compensation is a reality in most institutions. Recent advocacy has focused on increasing female representation in leadership roles, with organisations calling for gender quotas or affirmative action initiatives in university governance. Generally, there are few women in leadership positions to provide mentorship and be inspiring models for young graduates. The number of women in top academic positions is still lower than desired. Some of the universities have introduced gender-mainstreaming policies and are encouraging more women to take up leadership roles with capacity-building programmes and affirmative action measures (Idahosa, 2021).

6.11 STEM participation and gender gaps

Various studies have shown that women struggle to access and succeed in science, technology, engineering and mathematics (STEM) courses. Traditionally, STEM courses are perceived as the preserve of men. Female students have found it hard to succeed in the field due to institutionalised sexism, sexual harassment and undermining by colleagues and stereotyping (Botella et al., 2019; Liani et al., 2020). Women's participation in STEM fields continues to lag in Nigerian universities, despite initiatives aimed at increasing enrolment. Cultural norms and gender stereotypes still discourage many women from pursuing careers in these fields (Akinlolu, 2022). There is a growing movement to challenge these norms, with programmes designed to encourage girls to pursue STEM education from an early age. Ghana is facing similar challenges, with women under-represented in STEM fields. Universities and civil society organisations are working to change perceptions relating to women in STEM with scholarship programmes, mentorship initiatives and targeted recruitment.

There is also a push for increased funding for women in STEM research and development. Kenya has been actively promoting women in STEM, with numerous government and university-driven initiatives aimed at increasing female enrolment and retention in these fields. Mentorship programmes for women in STEM are becoming more common, as are scholarships aimed specifically at women pursuing STEM degrees. Tech hubs and incubators focusing on women entrepreneurs in STEM are also emerging, reflecting the broader push for gender equity in technology-driven sectors. The gender gap is particularly pronounced in STEM fields, where female students face greater barriers to entry and progression. Enrolment numbers indicate a skewed ratio favouring male students in courses related to engineering, computer science and the natural sciences. Cultural perceptions about the appropriateness of these fields for women contribute significantly to the lack of female representation.

6.12 Mental health and gender-sensitive support systems

The mental health of female students is increasingly being recognised as a gender problem in Nigerian universities. Women often face additional stressors, including harassment, financial difficulties and societal pressures, leading to higher rates of mental health issues. Universities are starting to offer gender-sensitive counselling services, although these are not yet widely available. Ghanaian universities are also dealing with mental health challenges among students, particularly in relation to the unique challenges faced by female students. There is growing awareness of the need for gender-sensitive support systems, including counselling services and peer support groups. It has been reported that mental health difficulties and challenges are also rising among men, although for socio-cultural reasons men hardly ever seek help.

Kenya has been proactive in developing gender-sensitive mental health services, with universities offering more support for female students dealing with mental health difficulties. Counselling centres and peer support networks are becoming more common, although the demand still outpaces supply. In South Africa, more female students than their male counterparts are at high risk of experiencing mental illnesses. Apart from academic failure and historical legacy factors, depression, post-traumatic stress, suicides, self-mutilation and harmful alcohol abuse among female students are linked to intimate partner violence and rape. Higher education institutions in South Africa take mental illnesses seriously, and various measures and support systems such as counselling and career development units have been put in place to help students cope with social problems. The University of the Witwatersrand, for instance, has several programmes that deal with menstrual poverty. The Wits 100 Centenary Menstrual Poverty pilot project founded in 2022 has provided 10,000 sanitary towels to Wits students. These and different best practices in other universities must be further embedded to support students, especially female students.

In summary, contemporary and emerging gender problems in African universities include tackling sexual harassment, bridging the digital gender divide, promoting women in leadership and increasing female participation in STEM. All four countries are at different stages of meeting these challenges, with Kenya appearing to lead in the implementation of gender-sensitive policies. However, there is a need for continued advocacy, policy reform and resource allocation to ensure sustainable progress across all gender-related problems.

In summary, contemporary and emerging gender problems in African universities include tackling sexual harassment, bridging the digital gender divide, promoting women in leadership and increasing female participation in STEM. All four countries are at different stages of meeting these challenges, with Kenya appearing to lead in the implementation of gender-sensitive policies. However, there is a need for continued advocacy, policy reform and resource allocation to ensure sustainable progress across all gender-related problems.

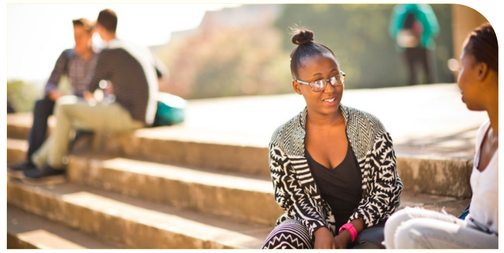
7 Identified best practices and transformations

This study highlights the persistent challenges and barriers female students in Sub-Saharan African universities face in their pursuit of access to employability and entrepreneurship opportunities. While progress is evident in attempts to deal with the challenges, glaring gaps persist in various areas, which even negate some of the gains made. The study notes that female students still face a number of hurdles when transitioning to employability. These include various forms of gender bias, harassment and discrimination. The same disadvantages characterise their pursuit of entrepreneurship opportunities There is a need for career guidance and mentorship to help female students navigate these challenges. Most students stated that their university training did not fully prepare them for the labour market. This calls for institutions to align their training with the requirements of the labour market and the rapidly changing needs of society. It goes in tandem with the need to build the capacities of female students and equip them with relevant skills that will make them even more employable and competitive in the job market. This would also help to close the gap between academic knowledge and the job market. Internship programmes, mentorship initiatives and entrepreneurship boot camps should be encouraged to enrich female students' practical experience and job readiness. While efforts have been made to provide affirmative action policies, such as scholarships and reserved quotas for female students, their impact is still limited. Disadvantaged and marginalised regions still manifest dominance in entrenched traditions and social norms that strongly exacerbate the challenges facing female students and women in pursuing employability and entrepreneurship opportunities.

The study identified a number of good practices, as follows.

- Strengthening entrepreneurship training: it is noteworthy that universities in the study countries have begun integrating entrepreneurship training into their curricula. Most of them have established entrepreneurship programmes to equip learners with the requisite skills and business ideas. This is helping graduates to explore self-employment as a workable career option.
- University-industry partnerships: stronger collaboration between universities and industry is highlighted as a best practice, ensuring that students gain exposure to real-world challenges and improved employability. Industry partnerships also provide access to funding and internships. Interventions such as WIL and the IWF provided by the DTI assist women entrepreneurs by means of various programmes that boost small enterprises, industry innovation and human resource development.
- Government support programmes: government initiatives such as Kenya's Youth Enterprise Development Fund and Nigeria's SIWES entrepreneurship programme are aimed at equipping graduates with the necessary skills and resources to become entrepreneurs or gain employment.
- Business incubators and innovation hubs: universities in all four countries are increasingly setting up business incubators and innovation hubs that support Start-ups and offer resources such as mentorship, office space and networking opportunities, fostering a more vibrant entrepreneurial ecosystem. The hubs' programmes include workshops on business development, marketing strategies and financial literacy. Female entrepreneurs can also apply for seed funding to support the launch of their business ventures. This initiative has allowed numerous women to start businesses, contributing to job creation and economic growth. A few initiatives are already underway in some Kenyan universities, including KCA University, Chandaria Business and Innovation Centre at Kenyatta University, and the iLabAfrica Business Innovation Centre at Strathmore University, among others.

- Gender-responsive policies: there is a need for gender policies that emphasise equal opportunities in education. However, the effectiveness of these policies is hindered by inadequate implementation and societal resistance to changing traditional gender roles. Universities have been urged to adopt more gender-inclusive practices, but the adoption process has been slow.
- Practices promoting employability and entrepreneurship: some universities have put in place practices to promote entrepreneurial thinking and improve the employability of graduates across diverse fields, helping to deal with the question of graduate unemployment. In Kenya, a leading public university has taken steps to promote gender equality on its campus. The university has implemented a mentorship programme that pairs female students with successful women in academia and industry. The programme provides networking opportunities, career counselling and workshops focused on building skills in leadership, entrepreneurship and financial management. Most South African schools of education are working with recruitment agencies to ensure that the right skills are developed for improved graduate employability.
- Programmes to combat menstrual poverty: the University of the Witwatersrand has several programmes aiming to combat menstrual poverty. The Wits 100 Centenary Menstrual Poverty Pilot Project, founded in 2022, has provided 10,000 sanitary towels to Wits students. The Student on the Go Programme is an initiative of the Wits Dean of Students Office in partnership with the Clicks Group. The aim of the project is to end menstrual poverty on university campuses, and the #EndPeriodPoverty programme is an initiative run by the Wits Student Representative Council. It provided 5,000 sanitary pads to students in 2023.
- Role of university leadership in leading transformation: university leadership plays a pivotal role in transformation. Recognising this, Kenyan universities have established the Kenya Network of Entrepreneurial Institutions Leaders (KNEIL) as a platform for institutional leaders to discuss, co-design and drive innovative and entrepreneurial solutions, with the active involvement of women scientists and entrepreneurs. Given the existing gaps and challenges in entrepreneurship training and the lack of supportive environments for prospective student entrepreneurs, Kenyan universities must deliberately integrate entrepreneurial education and training into their academic programmes. International partnerships and collaborations are also crucial in fostering innovations and entrepreneurship, and preparing students for employability.



- International partnerships and collaborations: these are also crucial in fostering innovations and entrepreneurship, and preparing students for employability. For instance, the British Council-funded IAU programme has enabled KCA University to partner with entrepreneurship training, transition to the world of work and support faculty exchanges. Riara University has also participated in a similar IAU project in collaboration with The Open University (UK) and Ashoka East Africa. Such initiatives should be expanded to reach more institutions and students, thereby boosting these collaborations' global perspective and potential.
- Support services for female students: some universities' support services for female students have proved quite useful. Some institutions have established gender resource centres that offer support services for female students, including access to scholarships, mental health counselling and advice on navigating gender-based challenges in academia. The centres have been instrumental in raising awareness about gender disparities, advocating for policy reforms and fostering a more inclusive campus environment. A good example is the Wits Innovation Centre (WIC), which helps with access to innovation grants, funding and aids in harnessing resources for the commercialisation of research.
- Promotion of STEM careers: the Women in STEM (WiSTEM) initiative in Ghana aims to encourage more female students to pursue careers in science, technology, engineering and mathematics. The programme, which is a collaboration between several universities, the Ghana Education Service and international organisations, offers scholarships, mentorship schemes and training for female students interested in STEM fields. This initiative enables female students to receive access to workshops, research opportunities and industry internships that improve their academic and professional skills. The programme also organises STEM camps for high-school girls, aiming to spark an interest in science and technology from an early age.

8 Conclusion and recommendations

8.1 Summary and conclusion

This study has explored an important and contemporary problem in higher education in Sub-Saharan Africa that needs urgent redress. The study reveals several challenges and barriers facing female students in African universities regarding access to employability and entrepreneurship opportunities. Female students face various and, at times, interconnected challenges due to their different characteristics and contexts. While the study acknowledges the progress being made, there are several challenges and even new emerging ones faced by university students, especially women.

The study further notes that cultural norms, institutional practices, sexism, language, ethnicity, racism, classism, geographical positioning, institutional type, resources, marital status and patriarchy intersect fundamentally with gender and inform women's lived experience in higher education. At the same time, the achievements of women and lack thereof are linked to the Capability Approach, which interrogates the extent to which developed capabilities and functioning boost individual well-being, human resource development and societal well-being.

This study confirms that gender inequality is still a persistent challenge in higher education in most Sub-Saharan African countries and has an effect on how women access employability and entrepreneurship opportunities. Female students in these countries face various barriers, from accessing higher education to navigating the job market and establishing businesses. Significant challenges include societal norms, cultural biases, lack of practical training, limited access to funding and inadequate support systems within universities. Resolving these inequalities is not only a matter of social justice but is also essential for the socio-economic development of these countries. Promoting gender equality in higher education will make possible the creation of a diverse and capable workforce, fostering innovation, economic growth and societal advancement.

Some of the universities still retain the traditional notion that universities are not businesses and do not need to focus on business and employment creation, but rather on the generation of knowledge. Only a few have transcended to new thinking that focuses on entrepreneurship and new areas, such as the commercialisation of research. While there is agreement that change is taking place in the higher education systems and institutions, there are few curriculum innovations to deal with the challenges. The new enthusiasm for entrepreneurship and other forms of curriculum transformations are thus welcome, in addition to the need to align curriculum reforms and innovations to societal needs and those of the rapidly changing labour market.

Throughout, the challenge of funding remains a critical barrier, not only for institutions but also for young graduates who need to access funding for their entrepreneurial Start-ups. In Nigeria and Kenya, the study observed that young people are now more inclined to establish their own enterprises rather than seek traditional employment opportunities. Governments are responding to this by making some funds available to young people for Start-ups, and they are also setting up innovation hubs in various regions of the countries, as is the case in Kenya and Ghana.

While collaborations with industry and the private sector have been recommended, these are only practicable in some African countries, such as those included in this study. In most African countries, the industry sector is poorly developed and disjointed, leaving universities with no connections and frameworks for collaborating with industry.

Numerous challenges and barriers have been identified, which need redress. While these challenges face various cadres of students, female students face them more profoundly due to multiple difficulties ranging from funding, gender bias, sexual harassment and violence against women (including femicide), among others. Thus, the need for the adoption of an intersectional approach. While it is easier to identify the challenges and suggested solutions, the greater difficulty is in finding ways to implement the proposed solutions. While this study has mainly provided a snapshot overview of the situation, there may be a need for a deeper study, on a wider scale, bringing on board a diversity of African countries to further explore the extent of the problems.

The study calls for a multifaceted approach involving policy reforms, institutional support, community engagement and targeted interventions, among others. By working together, governments, educational institutions, private sector organisations and civil society can create an environment where women have equal opportunities to excel in education, employment and entrepreneurship, thus contributing to the overall socio-economic development of their countries. Strengthening gender-responsive policies at both the national and institutional levels, strengthening mentorship and support programmes, and fostering public-private partnerships can all help to combat the disparities that women face in education and the labour market. Public awareness campaigns and cultural sensitisation initiatives can play a vital role in changing societal attitudes towards gender roles, encouraging more women to pursue careers in fields traditionally dominated by men.

These challenges present opportunities for targeted interventions. By implementing the tailored recommendations, there can be substantial progress towards creating more equitable higher education systems. A focus on practical entrepreneurship training, increased funding, gender-sensitive policies and the active dismantling of cultural barriers will be critical in enabling female students to succeed academically and economically. Changing societal perceptions and cultural norms is essential for promoting gender equality. Public awareness campaigns that highlight the importance of female participation in higher education, employment and entrepreneurship can challenge stereotypes and encourage more women to pursue careers in male-dominated fields. These campaigns can also promote the benefits of gender diversity in the workforce and the economy.

In conclusion, while several African universities are making commendable progress in overcoming gender barriers, aligning policies with implementation remains critical. Strategic investments in entrepreneurship training, industry links and ICT infrastructure, supported by robust partnerships, are necessary to help female students and prepare them for the evolving demands of the workforce. Institutions must sustain and expand these innovations to achieve gender equity and foster inclusive progress in higher education.

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8.2 Main recommendations

The study reveals several shortcomings and gaps that need redress. These range from a lack of relevant gender-responsive policies, relevance of training programmes, and the need for innovations and integration of emerging opportunities such as digitalisation and supportive frameworks for female students, among others. There is an urgent need to not only develop and implement these policies and supportive services, but also to ensure that they work for the intended stakeholders – the students. While the literature reported that institutions had implemented policies and some of these frameworks, some students were either not aware of them or did not find them effective enough. On the academic side, the study noted that most of the universities had made efforts to introduce entrepreneurship courses. This is a commendable step, but not yet adequate, as most of the courses are only accessible to a small group of students. It was acknowledged that a possible reason for this could be that not all students need to take courses in entrepreneurship, but those who do need to have access to this opportunity.

Curriculum innovation was also viewed as timely, so that training for all students is relevant and responsive to the rapidity of change in society and the fast-paced changes in the labour market. This could provide students with more innovative and relevant skills, not only for entrepreneurship, but also to make them attractive to the labour market. Skills training was recognised as important, in addition to the currently predominant theoretical approach in most systems, at a time when the world of work is keen on practical skills. It was observed that in some countries, students are now moving more to skills training and even to technical and vocational training instead of theoretical university training. These could be useful for women too, especially in skill areas which have traditionally been dominated by men. Multisectionality and cross-sectionality, as used in this study, call for multidimensional but connected alternatives to create new opportunities and possibilities. As such, the study makes the following recommendations.

- **Strengthening entrepreneurship training:** African universities must strengthen, integrate and expand entrepreneurship training into their programmes, with a special focus on female students. The programmes should include practical and interactive training and experience in collaboration with industry partners. This training should include specific components to enable graduating students to initiate Start-up businesses and succeed. It should include important elements such as business planning, financial management, marketing strategies and navigating regulatory environments. This would also require alternative pedagogies and teaching/learning approaches that enable students, add skills and open up opportunities for all students, especially women.
- **Access to business incubation centres:** the establishment of business parks and incubation centres across faculties within universities, which can nurture student-led innovations and Start-ups, is recommended. Promoting mentorship programmes that specifically support female students is also crucial. Building female-focused business incubation centres within universities could also be instrumental in providing a safe and supportive space for women to develop their business ideas. Innovation hubs and business parks have emerged as critical for incentivising innovation among students. Several universities in the study countries, especially those that participated in the British Council's IAU project, are already reaping benefits from this.
- **Strengthening national and institutional policies:** the study found that the policy landscape is changing, with national and institutional policies now in place to deal with the challenges facing female students. The study also noted, however, that policy implementation remains a challenge, resulting in the policies not serving the students' needs.
- **Establishment of strategic collaborations:** the study found that institutions with established strategic and closer collaborations with industry, private sector and international development have made progress in devising ways to deal with the challenges facing female students in their pursuit of employability and entrepreneurship opportunities. Most of the best practices cited are mainly due to such collaborations and partnerships. The universities thus need to establish collaborative networks that connect female students with industry professionals, business leaders and female entrepreneurs. These would also be useful for bridging the gap between academia and the job market for female graduates.

- **University-industry links:** linked to the above recommendation on collaboration is the specific need for closer links between the universities and industry, which still remain unexploited and untapped. The study noted that this step is crucial and has been adopted by some institutions, as illustrated in the section on best practices. These partnerships are important for stimulating innovation and strengthening opportunities for employability and entrepreneurship.
- **Introduction of gender-sensitive funding mechanisms to support female students' entrepreneurial ventures:** this might involve establishing university-led micro-financing schemes, grants or partnerships with private sector entities, to ensure that female students have access to the necessary capital.
- **Establishment of more robust university support services to specifically meet the needs of female students:** these should include specialised skills, funding mechanisms and access to funding, career guidance and gender-inclusive networking opportunities. Services should include mentorship programmes aimed at female students and involving successful female professionals and entrepreneurs, who can help build confidence and provide role models for female students. Support services such as daycare services, flexible learning schedules and counselling services are being put in place to help female students manage family responsibilities alongside their studies. Female-friendly environments and clubs promote networking, advocacy and mutual support, helping students to thrive academically and socially. Universities should establish employment support units focusing on female students. This might include job placement services, industry networking events and workshops on job-seeking strategies tailored to the challenges women face in the job market.
- To enhance student entrepreneurship and innovation, Kenyan universities are increasingly establishing incubation centres and business parks, often in collaboration with private sector partners. These centres are designed to equip students—especially female students—with essential business development and entrepreneurial skills. Institutions such as KCA University, Kenyatta University (through the Chandaria Business and Innovation Centre), Strathmore University (via the iLabAfrica Business Innovation Centre), and Kabarak University (with its Innovation and Incubation Centre established in 2021) have launched notable initiatives aimed at fostering innovation, commercialization, and industry linkages. The University of Nairobi's leadership in the African Technology and Engineering Network (AFRETEC) further illustrates efforts to leverage digital technologies for innovation across Africa. It is recommended that universities expand such centres across faculties, promote student-led start-ups, and establish female-focused incubation hubs to provide safe and supportive spaces for women entrepreneurs. Mentorship programmes tailored to female students are also vital. Evidence from the British Council's IAU project indicates that universities with these hubs are already seeing positive outcomes in student innovation..
- **Monitoring systems:** such systems should be put in place to ensure that support services are effective and accessible. Monitoring and evaluation systems at both institutional and national levels can help to assess the progress of gender equality initiatives. They can identify best practices and areas requiring additional intervention, ensuring that policies and programmes are effectively promoting gender equality. Existing gender policies should be reinforced at both the national and institutional levels. Universities should be responsible for implementing gender-responsive practices, such as creating support centres for female students, establishing harassment prevention mechanisms and providing platforms for women to express their concerns.

- **Strengthening and operationalising university policies against sexual harassment and gender-based violence to ensure safer environments for female students:** dedicated reporting mechanisms and awareness programmes on gender rights would provide female students with avenues to deal with difficulties related to discrimination and harassment. Universities need to put in place and enforce policies that rectify the deep inequalities and build on practices that promote justice and participation, and recognise intersectional approaches especially towards female students. This should include the Ubuntu philosophy and ethics of care – more care and less harm to each other.
- **Affirmative action programmes and policies promoting gender balance in admissions, leadership positions and faculty roles:** these can help to ensure that women have equal opportunities in accessing education and leadership roles. Quotas for female enrolment in specific programmes, especially in STEM fields, have been introduced in some universities to increase women's representation. Training women as agents for change and in resilience would also be useful.
- **Increased awareness:** programmes that challenge and reshape societal norms concerning gender roles in education and employment should be introduced. Universities, in partnership with community leaders and non-governmental organisations (NGOs), can run initiatives to encourage equal participation of women in both academic and entrepreneurial fields. National and local awareness campaigns are needed to challenge cultural norms and stereotypes that limit women's participation in higher education and entrepreneurship. These campaigns should focus on both urban and rural areas, highlighting the success stories of women in various fields to inspire future generations. Governments, in partnership with educational institutions and NGOs, should conduct awareness campaigns highlighting the importance of gender equality in education and entrepreneurship. These campaigns should be aimed at families, communities and employers, to change cultural perceptions and promote women's participation in various sectors.
- **Deployment of ICT and digitalisation:** the recent ICT and digitalisation developments in Kenya are encouraging and are opportunities that Kenyan universities could tap into. The few universities that have invested in ICT have made quite a lot of progress. While students generally expressed satisfaction with the developments being made to improve their access to ICT and the internet, much more needs to be done for them to benefit from the opportunities of ICT. Governments and institutions should invest in ICT and digitalisation, and make them accessible to all students, especially female students, as this would open up several opportunities for them. Students highlighted a number of products and digital innovations they have developed, some of which are already doing well in the market. There should be ways of supporting these ventures by governments and other stakeholders.
- **Accessibility to financing:** one of the main challenges that students identified as a hindrance to female students engaging in entrepreneurship is access to financing. The Kenyan government has started some initiatives to support young people, including helping students to access funding to start businesses. This needs to be adequate. Some universities have established such funds on a competitive basis rather than as an affirmative action stance.

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