

University Management Strategies for Promoting Gender Education and Skill Development in the 21st Century

¹Ifunanya Nkechi

Ohamobi &

²Gloria Chineze Osegbue

^{1&2}Faculty of Education,

Chukwuemeka Odumegwu Ojukwu

University Igbariam Campus,

Anambra State, Nigeria

Article DOI:

10.48028/iiprds/esjprcd.v13.i1.02

Keywords:

University management, Gender equity, Skill development, Inclusive education, 21st-century competencies

Abstract

The modern academic environment increasingly demands inclusive and responsive education systems that support equity and skill development. Despite notable progress in higher education, challenges such as gender inequality, inadequate funding, weak policy implementation, and unequal access to digital resources continue to hinder students' full participation and outcomes. This paper examines the role of university management in promoting gender equity and developing 21st-century competencies among students. It adopts a conceptual and analytical approach, drawing on existing literature and institutional practices. The study highlights strategies such as gender-sensitive policy formulation, inclusive leadership, capacity building, competency-based curricula, and the integration of digital learning, entrepreneurship, and experiential programmes. Findings indicate that effective leadership, deliberate investment, and structured implementation frameworks significantly enhance inclusiveness and skill acquisition. The paper concludes that strengthening university management practices is critical to producing competent, adaptable, and socially responsible graduates for national development.

Corresponding Author:

Ifunanya Nkechi Ohamobi

Background to the Study

Education is a veritable tool for national development. It is crucial basis for creating and delivering skilled human resource necessary for a country's growth and development. Among all levels of education, university studies provide individuals with the opportunity of focusing on specialized areas of study to fit into designated professions for the purpose of making impact in the society (Oraegbunam,Obi & Ohamobi, 2025). Today, universities have taken center stage in promoting social equity and economic growth by providing education and developing skills. In this 21st century, universities and colleges are not only supposed to award academic degrees but also create welcoming spaces that encourage gender equity and offer students with the much-needed competencies. This increased role is based on the changes in labour markets across the globe, shifts in employer expectations, and the internationalized ideas of sustainability and equality (Birru, 2024; Encinas-Martín & Cherian, 2023). In this light, there is a sense of urgency among the scholars and policymakers to implement gender education and skill development as a matter of concern in university management strategies.

Gender differences in education have historically reflected societal inequalities at large, where women and other oppressed genders have faced limitations to access, advance and meaningful engagement in higher education (mainstreaming research). Although the enrolment rates of women have increased, disparities in access to high-paying, high-skilled careers, leadership, and skill development opportunities, which have a direct impact on employability, have remained (Encinas-Martín & Cherian, 2023). As an example of this, young women are disproportionately under-represented in science, technology, engineering, and mathematics (STEM) fields, even though they have high overall educational attainment and consequently continue to perpetuate labour market inequalities (Encinas-Martín & Cherian, 2023). Additionally, the mainstreaming of gender in higher education has often been skewed and institutionally divided, leading to the need to implement management strategies that can help to turn policy promises into actual initiatives.

Contemporary higher education is gender educated, which is not only about access to enrolment but also the content of the curriculum, the culture of the campus, institutional policy and pedagogy that actively support gender awareness and equity. Gender education strives to eliminate stereotypes, provide safe and inclusive educational and learning environments, and guarantee equal representation of both genders in academic and administrative positions. Colleges and universities are now realizing their duty to set a good example of gender-equitable behaviors and integrate gender lenses in disciplines (Manuel, 2024). It is found that institutional incorporation of gender education through gender mainstreaming, inclusive pedagogy, and specific programmes can bring more equal opportunities and results to students (Manuel, 2024).

The requirements of a fast-paced globalized economy and changing labour market have made skill development a central goal of universities, and it is now widely acknowledged that the so-called 21st-century skills, including critical thinking, communication, collaboration, creativity and digital literacy, are the key to graduate employability, adaptability and lifelong

learning (Birru, 2024). Research demonstrates that incorporating these competencies into the higher education curriculum allows graduates to operate in a multi-layered workforce and invests into their long-term career growth (Birru, 2024). Moreover, successful skill development programmes should not ignore gender aspects, where the lack of access to technology, training, and real-life learning can affect the acquisition of skills and future opportunities (Birru, 2024). As a result, the development of skills in higher education not only reacts to economic needs but also overlaps the higher goals of equity and inclusion.

Although the world has committed itself to gender equality and skill development, most universities find it hard to implement them in their managements. Despite the variety of policies designed to address gender mainstreaming and skills development are mostly textual, institutional inertia, cultural being, and lack of resources continue to act as an inconsistency in their application. Women and students of gender minorities might face continuing obstacles of unequal access to mentorship, disparate representation in STEM and leadership programmes, as well as deficient support in the development of high-demand skills. Equally, gender inclusivity is not explicitly considered in the development of skill development programmes, thus worsening the existing inequality in outcomes of employability. The issue, then, is that policy objectives have been poorly translated in effective management strategies to support not only gender education but also equal skills building in universities. Moreover, despite the global emphasis on gender equity and employability skill, limited empirical evidence exist on how university management strategies specifically shape gender education outcomes and development of 21st century skills. Understanding this linkage is crucial for enhancing institutional performance and sustainable development. However, this study examines the role of university management strategies for promoting gender education and skill development in 21st century.

Theoretical and Conceptual Framework

Gender Education

Gender education is an educational approach that promotes equality between males and female by addressing gender stereotypes dissemination and unequal power relations within educational systems and society (UNESCO, 2015). It signifies fairness, inclusion and the absence of socio-cultural barrier that hinders the educational advancement of girls or boys. Similarly, Nwangwu (2014) views gender education as an educational reform strategy aimed at ensuring balanced representation, empowerment, and capacity development for both men and women within the Nigerian education system. But this study sees gender education as education reform that challenge inequalities and promote gender bias, equal participation and awareness on social justice .it seeks to eliminate gender-based discrimination, reduce inequalities and create learning environments that are inclusive, equitable and responsive to the needs of all learners.

Gender Education History

The development of gender education in universities was brought on by the larger women right's movements and increased access to higher education. The opportunity to study at the

university was brutally limited to women in the first part of the twentieth century, especially in Europe and North America, where women had a negligible presence in degree courses and in academic appointments. In 1970s, the Project on the Status and Education of Women in the United States represented a significant shift, promoting gender equity in enrolment, hiring, and campus climate, and thus supporting reforms of Title IX, which made sex discrimination in education illegal. These pioneering efforts were the basis of gender studies programme, affirmative action and institutional gender mainstreaming strategies.

Gender education has been growing significantly across the world in the past few decades. In most areas, Female enrolment in higher education institutions has even eclipsed that of males, thus closing access disparities of historical proportions (UN Global Lens on Gender Equality in Universities, 2023). However, such superficial improvement hides more level imbalances: the number of participants differs depending on disciplines, with women being disproportionately represented in the humanities and social sciences and underrepresented in STEM (Times Higher Education & UNESCO, 2022; Gender-equality paradox research). Further, despite the fact that universities are progressively implementing gender equity policies, research shows that most institutions have weak policies, practices, and data to determine the effectiveness of these policies on student achievement, faculty hiring, and career advancement (Times Higher Education & UNESCO, 2022). Similarly, Nigeria has experienced significant gender disparities in education especially in certain regions and at specific levels of education. Religion, early marriage poverty, insecurity, cultural barriers and preference for male education in some localities have resulted to lower enrolment for girls (e.g. Northern part of Nigeria). Such disparity can contribute to gender inequality.

Gender Equality and Equity in Higher Education

Gender equality in education involves the provision of equal rights and opportunities to all genders whereas gender equity involves the provision of special resources to overcome historical and structural discrimination. In Nigeria, gender inequality in higher education still persist, disparity remains across regions and discipline with fewer female representation in STEM fields and some northern part of Nigeria. The main issue of equality in higher education is access and representation; inequities, in turn, are caused by gendered obstacles, which define academic achievement. Despite the increase in the global enrolment of female students, there are sharp disparities in leadership, academic advancement and enrolment in STEM fields. Moreover, gender stereotyping still affects course selection, there are more concentration of men in science and technology courses and female in social science, arts and education (teaching)

Regardless of the gender equity promises made internationally, inequalities persist. Women are underrepresented in high-level academic and administrative positions, they face unequal pay, and have to also face the hidden obstacles in the form of gender biased evaluation processes and institutional ethos (Titili, Dolani & Margo, (2024).). Studies conducted by organizations like the University of Education, Winneba in Ghana have indicated all these gaps in female representation at higher levels and within certain disciplines, partly being

fuelled by deeply rooted sociocultural values and organizational inertia (Annan, 2022). Moreover, research indicates that gender norms affect education participation and achievement in higher education, which is an indicator of structural inequalities (Cortés et al, 2026). Inequalities is more pronounced in academics and politics. Empirical evidence shows that organizational cultures, policies, and practices in universities support gender inequities and often ignore latent biases (Morley, 2022). To establish gender equity therefore requires purposeful institutional planning beyond numerical equality and the creation of a supportive atmosphere between the two genders.

University Gender Education.

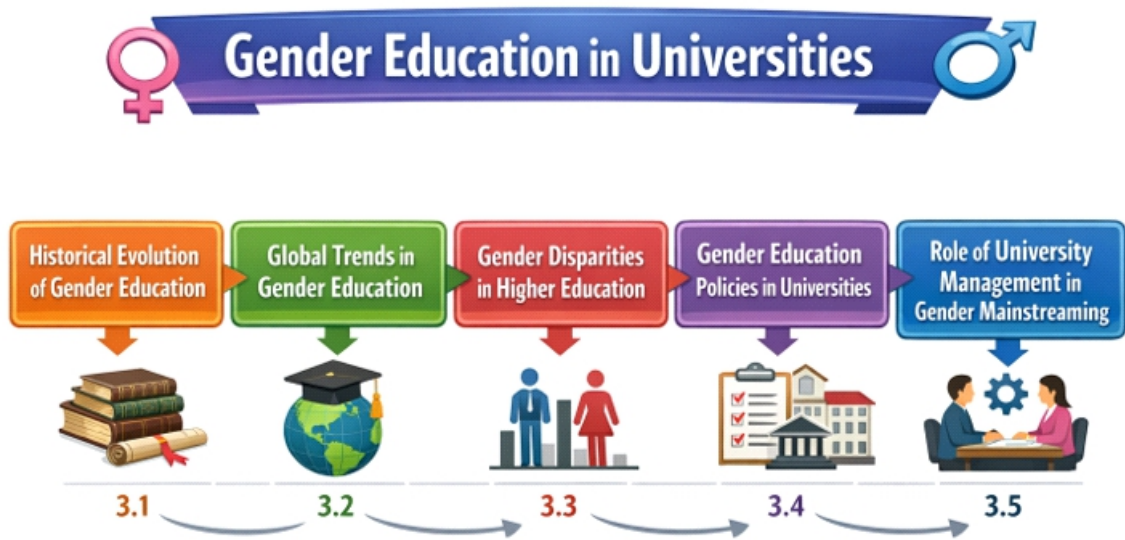


Figure 1: Gender education universities

Figure 1 introduces the key dimensions of gender education in universities by presenting its conceptual progression and institutional focus. The figure begins with the historical evolution of gender education, providing context for contemporary practices. It then highlights global trends that shape gender-responsive educational policies and practices. Gender disparities in higher education are presented to emphasize persistent inequalities affecting access, participation, and outcomes. The figure further outlines gender education policies in universities as formal mechanisms for addressing these disparities. Finally, it underscores the critical role of university management in mainstreaming gender considerations, setting the foundation for institutional commitment to equity and inclusion in higher education.

Policies of Gender Education in Universities

Universities have in turn countered gender disparity by incorporating gender equity into policy frameworks. Typical measures used in gender diversity policies include gender-balanced recruitment, gender-orientated mentoring, gender-orientated curricula and official mainstreaming strategies (Timmers, Willemsen, & Tijdens, 2010). Such policies are not

equally effective: some of the institutions adopt comprehensive strategies on cultural, structural, and individual levels, and others have certain success only (Timmers et al., 2010). The United Nations Sustainable Development Goals also reiterate the need of higher education institutions in bringing gender equity to the fore in terms of policy, research, and communal participation. In Nigerian education sector government has introduced several policies and initiatives to promote gender equality which include the universal basic education programme (UBE), the national policy on education and policies aligned with international framework such as the Sustainable Development Goals (SDGs), particularly Goal 4 (Quality Education) and Goal 5 (Gender Equality), girl child education campaign scholarship scheme, UNICEF and UNESCO are also in line with the advocacy.

University Management in Gender Mainstreaming

University management is at the heart of the operations of gender education. The dedication of leadership to gender mainstreaming means that the consideration of equity is properly incorporated into the governance, resource distribution, and evaluation procedures (Castellsagué & Szyszlo, 2024). Policy implementation and structural change can be achieved using internal networks and special gender units, but they need to be institutionalized with power (Tildesley & Bustelo, 2025). Gender education policies must be translated into meaningful results through responsive leadership, data-based policies, and inclusive cultures of governance.

Skill Development in 21st Century

Skill Development

Skill development refers to the process of equipping learners with relevant competencies, practical abilities and adaptive capacities required for effective participation in the labour market and social development (Federal Republic of Nigeria, 2019). It emphasizes employability, innovation and lifelong learning within contemporary economic realities. Higher education skill development is a concept that means the acquisition of skills to enable graduates to perform well in various career and societal environments. This involves cognitive skills including critical thinking, interpersonal skills including communication, and technical or digital literacies that are becoming an essential part of the global economy (Tymon, 2013). The role of universities in instilling disciplinary expertise as well as transferable skills, which strengthen the employability and life-long learning is very important. Operationally, skill development involves integrating technical entrepreneurial digital learning experience into university programmes to prepare graduates to function effectively in the society. However, the different access to opportunities of skill development can continue to exist leading to social inequalities unless handled carefully. An example is the limited access to internships, leadership training, or technological tools to support the acquisition of skills in women and marginalized groups.

21st Century Skills (Digital, Entrepreneurial, Soft Skills)

The 21st century has a wide range of competencies that are not limited to conventional academic knowledge in skill development. Educational technologies like data literacy,

coding, and effective use of digital skills are essential since economies increasingly become digitalized. Graduate entrepreneurial skills, including opportunity identification, risk taking, and innovativeness, enable graduates to start business or spearhead organizational change (Morris, Kuratko, & Schindehutte, 2012). Moreover, soft skills, such as communication, teamwork, adaptability, and critical thinking, should not be overlooked either; employers appreciate such skills to be able to navigate in complex and team-based work processes (Trilling & Fadel, 2009). A moderate focus on digital, entrepreneurial, and soft skills equips graduates with the ability to thrive in the various and changing labour markets.

Gender Aspects of Skill Acquisition

Gender dynamics influence access to and the result of skill development. According to the studies, women and gender minorities tend to be underrepresented in digital and STEM-related training because of the social norms, stereotypes, and educational tracking. As an illustration, female students can be less confident or less likely to pursue computing and engineering, which can influence their learning of high-value digital skills (Cheryan, Ziegler, Montoya, & Jiang, 2017) The issue of gender differences also manifests in entrepreneurial training, as women are restricted by factors like poor access to networks, funding, and mentorship. These trends are important signals that demand gender-sensitive approaches that can guarantee equal access to skill-building opportunities in university programs.

Innovation of the Curriculum to foster inclusive skill development

Inclusive skill development requires curriculum innovation. Universities also need to incorporate interdisciplinary and practical learning that nurtures contextually competent learners. Project-based learning, service learning, internships, and industry-related courses enable students to use their knowledge and practice their skills in the real world (Kolb, 2015). The introduction of flexibility and choice into curricula is a way in which students with different backgrounds are able to follow skill pathways that they are interested in and that lead towards their career aspirations.

Technology in the Development of Skills

Technology is central to the growth of access to skill development. Online courses, simulations, learning analytics, and digital platforms individualize learning and allow individuals to learn at their own pace (Means, Toyama, Murphy, & Baki, 2013). There is also the technology that enables collaboration beyond geographical borders and it exposes learners to world views. Nonetheless, any disparities in access to devices and high-quality internet can recreate the digital divides unless mitigated by the institutional support and investments in infrastructure.

Industry-University Cooperation to Train Skills

University-industry partnerships close the divide between university education and industry needs. Apprenticeship, co-operative education, and joint research partnerships guarantee that the curricula are up-to-date and adaptable to the trends in the labour market (Cappelli, 2015). Employers have access to a pool of highly talented graduates and students have access to practical experience and professional contacts.

Strategies of promoting gender education in universities

Figure 2 introduces the core university management strategies designed to promote gender education and equity within higher education institutions. The figure highlights gender-sensitive policy formulation as a foundation for addressing systemic inequalities. Inclusive leadership and governance are presented as essential for ensuring fair representation and decision-making. Capacity building for staff emphasizes training and awareness to support gender-responsive practices, while a safe and inclusive campus environment underscores the importance of protection, respect, and equal opportunities for all genders. Gender-responsive budgeting is also emphasized as a critical tool for translating policy commitments into actionable programmes. Collectively, the figure sets the framework for understanding institutional approaches to advancing gender education.



Figure 2: University management strategies for promoting gender education

Concept of University Management

University management is a complex of system planning, organizing, directing and controlling higher institutions of learning, therefore making possible the achievement of academic goals, maintenance of quality standards and responsiveness to societal needs. Nwankwo and Okafor (2022) conceptualize university management as a strategic and participatory process that aligns institutional policies, resources and stakeholders towards achieving excellence in teaching, research and community services.

Modern literature stresses that quality management in higher education goes beyond administrative competency to include visionary leadership that facilitates innovation, equity, and responsiveness to a changing labor market (Middlehurst, 2013). This study sees university management as a leadership that involves participatory decision-making

structures, effective communication, accountability and sustainable development within the university. According to the current studies, university management is required to be participatory and flexible, and it should deploy systems that promote unrelenting enhancement and responsibility (Bolden, Petrov, & Gosling, 2009).

Researchers hypothesize that university executives need to communicate policies and designs that promote institutional efficacy, inclusiveness, and appointee involvement

University Gender Sensitive Policy and Implementation

Management of universities should start with designing and enacting gender sensitive policies that incorporate equity into institutional frameworks and procedures. In universities, especially in Europe, such policy instruments as Gender Equality Plans (GEPs) have become central to the policy-making process, and institutions must make them in order to receive research funding under such programmes as Horizon Europe (Rosa & Clavero, 2022). Such policies spell out gender objectives, spell out steps towards curriculum reforms, recruitment, and career advancement and have monitoring ratios that facilitate accountability. Effective policy frameworks can assist in converting gender commitments into working priorities and in seeing gender considerations working their way into the institutional planning and review systems and they include:

Inclusion Leadership and Governing Structures

Gender education should be a strategic priority that is promoted through inclusive leadership and governance structures. Research indicates that the presence of women on senior academic and administrative boards boosts institutional commitment to gender equality since leaders may promote a systematic change and strategically distribute resources (Correa, Glas, & Opara, 2025). Inclusive governance will be about not only representation within faculty boards, committees, and strategic councils, but also providing space to diversity of voices in the policy making and execution. Distributed and transformational leadership models have the potential to help promote collective ownership of gender equity objectives and enable change agents in the institution (Okoro, 2025).

Academic and Administrative Staff Capacity Building

Capacity building is essential in terms of preparing the staffs with knowledge and skills in order to adopt gender-responsive strategies. Gender mainstreaming, unconscious bias, inclusive pedagogy, and equitable recruitment programmes make the staff aware of the barriers in the structure, and implement inclusive practice in the teaching, research supervision, and engagement with students. Investment in gender awareness and professional development by the institution increases the faculty and administrator capacity to meet various student needs and oppose discriminative norms (Nkosi & Maphalala, 2025). When universities develop internal capacity, they are more likely to have sustained gender equity results.

Gender Responsive Budgeting and Resource Allocation

Gender equity strategies can be funded and sustained by allocating resources in the gender lens. Gender-responsive budgeting is the process of analyzing the impact budget decisions have on various genders and allocating funds to projects that decrease inequalities, e.g. scholarships, mentoring programmes, childcare centres, or research grants to female scholars (Llaftiu & Shuli, 2024). Using gender-focused budgeting activities will help the universities to match their financial investments with institutional equity objectives and show practical commitment to gender education practices.

Safe and Inclusive Campus Environment

Gender education thrives on a safe and inclusive campus environment. The management should put in place and implement policies against gender-based violence, harassment, and discrimination, supported by the ready reporting mechanisms and supportive services. Partnership with national and institutional organizations to deal with sexual harassment and develop awareness initiatives improves student welfare and academic involvement (Nethengwe, Moikanyane, & Sithuga, 2025). The inclusive environments also acknowledge the existence of diverse gender identities and value respect, which leads to wider engagement to academic life.

University Management Strategies for Improving Skill Development

In the 21st century knowledge-driven economy universities are expected not only to transmit academic knowledge but also to equip students with practical, entrepreneurial, digital and employability skills necessary for global competitiveness. However, the key university management strategies for improving skills development includes:

Curriculum Review and Competency Based Learning

University management takes a key position in curriculum review and competency-based learning (CBL), thus matching the academic programmes with labour market needs. Curriculum models that are based on competency frameworks are based on outcomes which include technical skills and general skills that are transferable like problem solving skills, communication skills and adaptability. Empirical research has shown a positive relationship between competency-based curriculum and graduate employability, which explains why universities should consider designing specific outcomes of skills in their courses, instructional approaches, and assessment strategies (Pérez-Zúñiga, 2025). Regular curriculum review is used to ensure that programmes are kept up to date, responsive to technological changes, and applicable in terms of stakeholder expectations of employability.

Digital Learning platform integration

The digitization of learning platforms improves the availability of skill development opportunities and their ease of access. Online modules, simulations, and blended learning environments can be considered digital interventions that can be used to enhance professional skills and give students experience in digital literacies vital in modern workplaces (Kurakbayeva, & Xembayeva, 2025). The key elements in management strategies are the

provisioning of institutional infrastructure, provisioning of professional development to staff to design and deliver technology enhanced learning and policies that facilitate digital adoption of pedagogy. Universities that purposefully incorporate digital platforms in their learning processes will create opportunities of student engagement, self-directed learning and lifelong learning of skills.

Entrepreneurship and Innovation Hubs

Creation of entrepreneurship and innovation centers in universities fosters experiential learning and development of entrepreneurial skills. Through these hubs, ideation, collaboration, prototype development, and business creation take place, hence connecting academic concepts to reality. The practical research shows that interdisciplinary learning, in which students engage in interdisciplinary projects that combine the IoT, AI, and cybersecurity skills, can improve technical and entrepreneurial capabilities (Nweke, Okebanama, & Mba, 2025). The administration that fosters such ecosystems within the university stimulates student creativity and leads to a culture of innovation that goes beyond classroom instruction.

Internship, Mentorship and Apprenticeship Programmes

Internships, mentorship and apprenticeship programmes are key bridging mechanisms between theory and practice. Good internships enable students to learn knowledge in the classrooms into work environments, sharpening technical and professional skills and internalizing organizational expectations (Santiago & Gil, 2025). Mentorship refers to a union between students and experienced practitioners offering direction, feedback and career information, whereas structured apprenticeships entail placing students in professional settings over lengthy durations of time. Management of universities making these partnerships with industry stronger boosts student experiential learning and consequently career readiness.

Tracking and Reviewing of Skill Development Programmes

Good management should involve constant monitoring and assessment of skill development programs to guarantee that the targeted results are attained. It is done by monitoring the performance of students, employer feedback, and graduate outcomes in order to evaluate the effectiveness of curricular and experiential interventions. Continuous assessment allows universities to make changes in strategies, discover gaps, and ensure that programmes are better aligned to the changing needs of the labour market. Through evidence use in making decisions, the management can assist sustainable enhancement of skills within institutional programmes. initiatives.

University Management Strategies for Enhancing Skill Development



Figure 3: University Management Strategies for Enhancing Skill Development

Figure 3 introduces the key university management strategies adopted to enhance skill development among students. It presents a coordinated institutional approach that begins with curriculum review and competency-based learning to ensure academic relevance and practical orientation. The integration of digital learning platforms is highlighted as a means of expanding access and supporting modern learning methods. Entrepreneurship and innovation hubs are emphasized for fostering creativity and self-reliance, while internship, mentorship, and apprenticeship programmes strengthen industry linkages and experiential learning. The figure also underscores the importance of continuous monitoring and evaluation to sustain effectiveness, guide policy decisions, and improve overall outcomes of skill development

Issues that Affect University Management

Institutional and Cultural Barriers

University administration is faced with institutional and cultural obstacles that hinder change and innovation. Unyielding governments and conventional administrative guidelines can obstruct their responsiveness to change, such as the adoption of gender equity movement or adaptive management approaches (Ndimbo & Nkwabi, 2025). Such obstacles are frequently multiplied in situations where a top-down policy and bureaucratic stagnation suppress agency and the ability to apply creative solutions, thus developing a systemic opposition to the required changes.

Gender Bias and Stereotyping

Gender discrimination and stereotyping remain a major issue in the management of higher education. The unequal representation of women and other gender minorities in leadership positions is an indication of larger structural differences that leave them and other gender minorities disadvantaged in decision-making and career advancement. The academic

literature notes the role of stereotypes about gender roles in affecting the views of competence and limiting female access to senior academic and managerial roles. This prejudice does not only narrow down the staff potential but also creates student anticipation and involvement, thus reinforcement of gendered patterns.

Lack of proper funding and infrastructure

Most universities, especially in developing countries, are poorly funded and have poor infrastructure limiting their ability to provide quality education and services. A lack of finance usually causes the degradation of facilities, inadequate investment into teaching and research, and persistent labour conflicts because of low pay and under-resourcing (Ibiteye & Emitha, 2025). The chronic underinvestment compromises strategic planning, staff recruitment, and capacity building and, consequently, the effectiveness of the institution.

Policy Implementation Gaps

Implementation gaps often compromise the intended effect of progressive policies even in instances where they are implemented. Investigations of the Nigerian higher education sector show that policies can be well written on paper but lack the mechanisms, accountability structures, and resources to be implemented (Agbabiaka & Albert, 2025). These gaps indicate the wider problem of converting strategic visions into operational realities, because the management of a university usually does not have the systems or incentives to assess, measure and implement policy outcomes.

Technological and Digital Divide.

The technological and digital divide is a serious issue that contributes to disparities in access to learning and management processes. The lack of reliable internet connectivity, lack of digital platforms, and unequal digital literacy levels among students and staff is a challenge affecting many institutions, which limits the implementation of e-learning and administrative technologies (Emmanuel, Henry, & Christian, 2024). Inequalities in access to technology not only inhibit the teaching and learning processes but also complicate management tasks including communication, data analytics and institutional planning. To fill such a gap, it is imperative to undertake concerted efforts in the provision of infrastructure, capacity development and digital policies that are inclusive so that every individual within the university community is able to fully enjoy the benefits of the academic and administrative processes.

Conclusion

The current research determined the importance of university management in creating gender education and skills in the 21st century. The challenges faced by academic institutions include institutional and cultural barriers, ongoing gender bias, inadequate funding, policy implementation gaps, and technological disparities that affect both students and staff members and limit their fair participation and access to both resources. The results highlight the necessity of a strong leadership investment into equity, innovation, and evidence-based decision-making. University management should take care that resources are well

distributed, policies are adhered to and employees are provided with specific training on how to meet various needs of the students. The digital divide must be addressed and infrastructure and technology must be invested in to ensure that every student can access modern learning opportunities. Any reluctance to address these problems threatens to entrench inequalities, reduce the employability of graduates and jeopardize the overall societal and economic value of higher education.

Gender sensitive policies need to be institutionalized by universities and need to be reinforced by stringent monitoring and accountability measures. Leadership should also be participatory and inclusive in promoting the representation of women and marginalized groups. The curriculum must be competency-driven, incorporating practical and entrepreneurial, as well as digital skills to increase employability. Effective industry collaboration through internships, apprenticeships, and innovation hubs should be developed in order to bridge the gap between theory and practice.

References

- Agbabiaka, M. O., & Albert, M. (2025). Institutional and policy barriers to implementing sustainable education in Nigerian higher institutions, *Journal of Contemporary Education Research*.
- Annan, E. (2022). An evaluation of gender mainstreaming efforts in a public university in Ghana: A case study of University of Education, Winneba (UEW), *Open Journal of Educational Research*, 2(6), 367–380.
- Birru, Y. (2024). The integration of 21st-century skills into the higher education curriculum: Practices and perspectives systematic review, *Teacher Education and Curriculum Studies*, 9(3), 60–68.
- Bolden, R., Petrov, G., & Gosling, J. (2009). Distributed leadership in higher education: Rhetoric and reality, *Educational Management Administration & Leadership*, 37(2), 257–277.
- Cappelli, P. H. (2015). Skill gaps, skill shortages, and skill mismatches: Evidence and arguments for the United States, *ILR Review*, 68(2), 251–290.
- Castellsagué, A., & Szyszlo, P. (2024). Progress and challenges of gender mainstreaming in Spanish university cooperation for international development: The technical staff's viewpoints, *International Journal of Sustainability in Higher Education*, 25(7), 1484–1498.
- Cheryan, S., Ziegler, S. A., Montoya, A. K., & Jiang, L. (2017). Why are some STEM fields more gender balanced than others? *Psychological Bulletin*, 143(1), 1–35.

- Correa, A., Glas, M. G., & Opara, J. (2025). Females in higher education and leadership: Insights from a multi-method approach, *Frontiers in Education*, 9, 1485395.
- Cortés, P., Hwang, J., Pan, J., & Schönberg, U. (2026). *Gender norms and the labor market* (Working Paper No. 34716), National Bureau of Economic Research.
- Emmanuel, F. C., Christian, A. O., & Henry, O. N. (2024). Comparative analysis of mainstreaming e-learning and digital divide: The academia perspectives, *International Journal of Research and Innovation in Applied Science*, 9(7), 73–85.
- Encinas-Martín, M., & Cherian, M. (2023). *Gender, education and skills*. OECD.
- Federal Republic of Nigeria. (2019). *National policy on education* (6th ed.), NERDC Press.
- Global universities address gender equality, but gaps remain. (2022). *Times Higher Education & UNESCO IESALC*. Retrieved February 11, 2026, from <https://www.timeshighereducation.com>
- Ibiteye, O. K., & Emitha, A. M. (2023). Inadequate funding in Nigerian universities as a menace to educational growth. *GPH-International Journal of Educational Research*, 6(4).
- Kolb, D. A. (2014). *Experiential learning: Experience as the source of learning and development*. FT Press.
- Kurakbayeva, A., & Xembayeva, S. (2025). Enhancing professional abilities of university students through digital educational interventions: A study in Kazakhstani universities, *Frontiers in Education*, 9, 1478622.
- Llaftiu, B., & Shuli, I. (2024). Gender budgeting: A contextual analysis of the higher-education sector in Albania. *Administrative Sciences*, 14(8), 180.
- Manuel, J. D. (2024). Communicating the implementation of gender and development (GAD): A classroom setting experience in higher education institutions (HEIs), *International Journal of Research and Innovation in Social Science*, 8(4), 313–328.
- Means, B., Toyama, Y., Murphy, R., & Baki, M. (2013). The effectiveness of online and blended learning: A meta-analysis of the empirical literature, *Teachers College Record*, 115(3), 1–47.
- Middlehurst, R. (2013). Changing internal governance: Are leadership roles and management structures in United Kingdom universities fit for the future? *Higher Education Quarterly*, 67(3), 275–294.

- Morley, L., & Leyton, D. (2022). *Queering higher education: Troubling norms in the global knowledge economy*, Routledge.
- Morris, M. H., Kuratko, D. F., Schindehutte, M., & Spivack, A. J. (2012). Framing the entrepreneurial experience, *Entrepreneurship Theory and Practice*, 36(1), 11–40.
- Ndimbo, G. K., & Nkwabi, S. M. (2025). *University-society relationships: Institutional barriers to the effective implementation of the university's third mission in Tanzania*, *SAGE Open*, 15(3).
- Nethengwe, R., Moikanyane, K. K., & Sithuga, N. P. (2025). Examining the drivers, effects, and mitigation strategies of gender-based violence among university students in South Africa, *International Journal of Research in Business & Social Science*, 14(10).
- Nkosi, N., & Maphalala, M. (2025). Advancing gender equity in higher education research, *African Journal of Inter/Multidisciplinary Studies*, 7(SI1), 1–14.
- Nwagwu, N. A. (2014). *Educational management: Issues and trends in Nigeria*, University of Benin Press.
- Nwankwo, I. N., & Okafor, P. N. (2022). Strategic management practices and institutional effectiveness in public universities in Nigeria, *Nigerian Journal of Educational Management*, 20(1), 77–91.
- Nweke, L. O., Okebanama, U. F., & Mba, G. U. (2025). Enhancing entrepreneurial skills through experiential learning in IoT, AI, and cybersecurity, *Discover Education*, 4(1), 149.
- Nwosu, A. A., & Ugwuegbu, C. N. (2021). University education and national development in Nigeria, *Nigerian Journal of Educational Administration and Planning*, 21(2), 112–125.
- Okoro, P. (2025). Leadership strategies for promoting gender equity in higher education administration in Nigeria. *International Journal of Educational Administration and Policy Studies*.
- Oraegbunam, I. K. E., Obi, Z. C., & Ohamobi, I. N. (2025). TETFund intervention on provision of school facilities and equipment as predictors of administrative effectiveness of federal universities in South-East, Nigeria, *International Journal of Innovative Education Research*, 13(1), 407–416.
- Pérez-Zúñiga, R., Martínez García, M., & Oliva Ibarra, F. E. (2025). Employability and its relationship with the competency-based approach, teaching methodologies, and assessment in higher education: A systematic review, *Frontiers in Education*, 10, 1703144.

- Rosa, R., & Clavero, S. (2022). Gender equality in higher education and research, *Journal of Gender Studies*, 31(1), 1–7.
- Santiago, T., & Gil, M. (2025). Preparing graduates for digital futures: Critical insights from high-tech internships in business administration, *Education and Information Technologies*, 1–31.
- Tildesley, R., & Bustelo, M. (2025). Tensions, challenges, and opportunities: Internal networks supporting gender equality policy processes and structural change in universities. *Social Politics: International Studies in Gender, State & Society*, 32(3), 612–636.
- Timmers, T. M., Willemsen, T. M., & Tijdens, K. G. (2010). Gender diversity policies in universities: A multi-perspective framework of policy measures, *Higher Education*, 59(6), 719–735.
- Titili, D., Dolani, V., & Margo, L. (2024). Gender mainstreaming in Albanian higher education institutions, *Women's Studies International Forum*, 103, 102888.
- Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times*. John Wiley & Sons.
- Tymon, A. (2013). The student perspective on employability, *Studies in Higher Education*, 38(6), 841–856.
- UN Global lens on gender equality in universities: Reviewing their performance. (2023). *United Nations Academic Impact*. Retrieved February 11, 2026, from <https://www.un.org>