HIGHER EDUCATION AUTHORITY

"Ensuring Quality in Higher Education"

THE STATE OF HIGHER EDUCATION IN ZAMBIA

2024

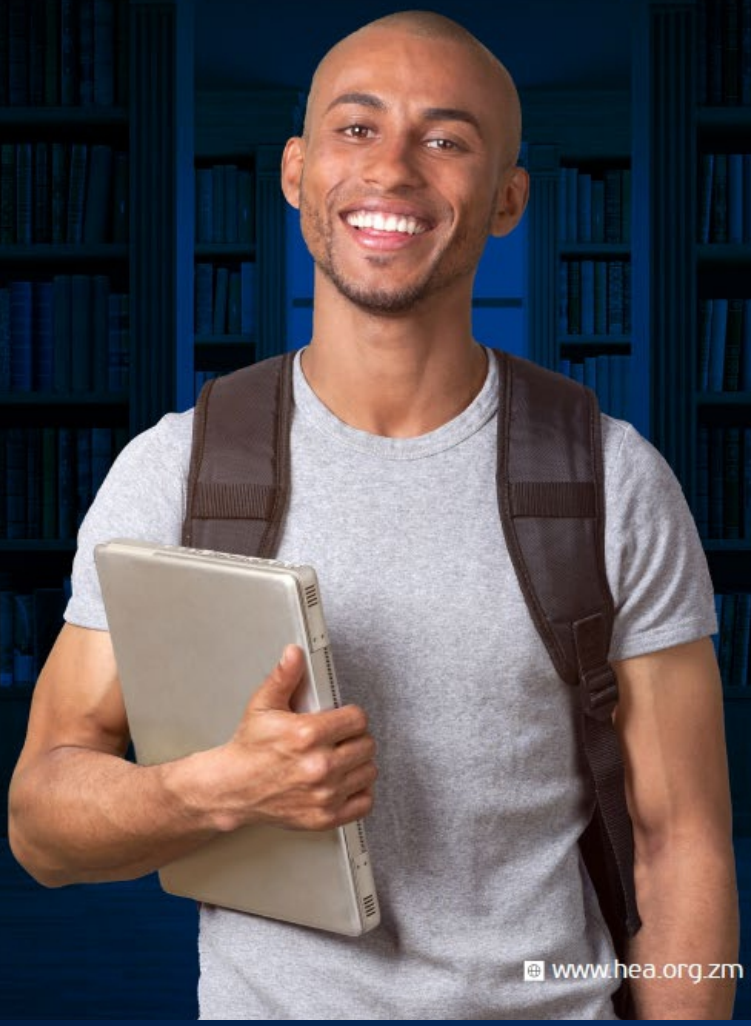


Higher Education In Zambia At 60

HIGHER EDUCATION AUTHORITY

Who We Are

The Higher Education Authority (HEA) is a statutory body established under the Higher Education Act No. 4 of 2013, to provide external quality assurance for Higher Education Institutions (HEIs) in Zambia. It began its operations in 2015.



www.hea.org.zm

Follow us

@HEAZambia on:

#HEAZambia
#HigherEducationZambia

Vision

An innovative and transformative quality assurance institution.

Mission Statement

To develop and foster an innovative quality assurance system in higher education institutions for a knowledge-based society.



Follow us

@HEAZambia on:

#HEAZambia
#HigherEducationZambia

DMI-ST EUGENE UNIVERSITY

REGISTERED & ACCREDITED BY HIGHER EDUCATION (HEA)

CHIBOMBO, WOODLANDS & CHIPATA CAMPUS

ZQF 10 INSTITUTION



ADMISSION OPEN

17 Years
Academic Excellence

ENROLL NOW

Why Choose DMISEU?

- ✓ Highly Qualified and Experienced Faculties
- ✓ Well Equiped Laboratories
- ✓ Scholarship on Different Criteria to Support Students of All Needs
- ✓ Edication with Discipline and Profesionalism

Best Choice For World Class Education

Mode Of Delivery
- Face to Face
- Blended
- E-Learning
- Online Learning

PROGRAMMES OFFERED

SCHOOL OF ICT
- Diploma in Computer Science
- Bachelor of Engineering in Computer Science
- Bachelor of Science in Business Information Systems
- Bachelor of Science in Digital Marketing
- Bachelor of Science in Graphics, Multimedia & Animation
- Bachelor of Science in Hardware, Networking and Security Administration
- Master of Science in Computer Science
- Ph.D Programme in Computer Science

SCHOOL OF HEALTH
- Diploma in Registered Nursing
- Diploma in Clinical Medical Science
- Diploma in Environmental Health Science
- Diploma in Food & Nutrition
- Bachelors of Science in Food and Nutrition

SCHOOL OF SOCIAL WORK
- Diploma in Social Work
- Bachelor of Social Work (Generic)
- Bachelor of Social Work in Medical & Psychiatry
- Bachelor of Arts in Social Work and Counseling
- M.S.W in Community Development
- M.S.W in Project Management, Monitoring & Evaluation
- Ph.D Programme in Social Work

SCHOOL OF COM & MGNT STUDIES
- Diploma in Accounts & Finance
- Diploma in Business Management
- Bachelor of Business Administration
- Bachelor of Public Administration
- Bachelor of Commerce in Accounts & Finance
- Master of Commerce in Accounts & Finance
- M.B.A in Finance & International Business
- M.B.A in Human Resource Management
- M.B.A in Marketing & Entrepreneurship
- Ph.D Programme in Management Studies

SCHOOL OF EDUCATION
- Diploma in Primary Education
- Postgraduate Diploma in Teaching Methodology
- Bachelor of Education in Primary Education
- Bachelor of Science in Secondary Education
- Bachelor of Arts in Secondary Education
- M.Ed in Educational Administration & Management
- M.Ed in Education (Mathematics, Physics, Chemistry, Biology, Geography, Civic and Primary Education)
- Ph.D Programme in Educaton

MODE OF DELIVERY
Full Time/ Blended or Online & E-Learning

Admission to Diploma/Bachelor's Degree Programme:
_ Secondary school or Statement with 5 O' level Credit or better and that should include Maths & English

Admission to Master's Degree Programme
- Bachelors Degree in Relevant Discipline

Admission to Ph.D Programme
- Master Degree in Relevant Discipline

ADMISSION HELPLINE

+260 977 613 644
+260 950 167 850

admission@dmiseu.edu.zm
dmiseuadmission@gmail.com

DMI StEugene

www.dmiseu.edu.zm

HIGHER EDUCATION AUTHORITY

"Ensuring Quality in Higher Education"

THE STATE OF HIGHER EDUCATION IN ZAMBIA 2024

Higher Education in Zambia at 60

TECHNICAL COMMITTEE

Kazhila Croffat Chinsembu
Daniel Ndhlovu
Martin Mushumba
Denny Nsokolo
Eustarckio Kazonga
John Chileshe
Francis Simui
Charity Meki-Kombe
Petronella Lesa Chilando
Mitchelle Kalumbu Chiyala
Birbal Boniface Musoba

© Higher Education Authority, Lusaka, 2025

No part of this publication may be reproduced, stored in or introduced into a retrieval system, or transmitted, in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) without the prior written permission of the publisher.

All photographs appearing in this publication are the exclusive property of the Higher Education Authority (except where stated otherwise) and are protected under applicable copyright laws.

Disclaimer: All advertisements appearing in this publication were produced by the respective advertisers.

CONTACT

Published by the Higher Education Authority
Engineering House
Kelvin Siwale Road
P.O. Box 50795
Ridgeway
Lusaka, Zambia
Cell: +260 211 227 084 / +260 950 470 444
Email: info@hea.org.zm / www.hea.org.zm

Edited by: **UNZA Press**

Designed and Printed by: **SEASHELLS LIMITED**

ISBN: HEA-0001-2025

TABLE OF CONTENTS

ABOUT THE TECHNICAL COMMITTEE		**x**
FOREWORD		**xiii**
ACKNOWLEDGEMENTS		**xv**
EXECUTIVE SUMMARY		**xvii**
ACRONYMS AND ABBREVIATIONS		**xviii**
LIST OF TABLES		**xix**
LIST OF FIGURES		**xx**
CHAPTER 1 :	OVERVIEW OF THE REPORT	1
1.1	INTRODUCTION	1
1.2	STRUCTURE OF THE REPORT	1
1.3	SOURCES OF DATA FOR THE REPORT	1
CHAPTER 2 :	STATISTICS IN HIGHER EDUCATION IN ZAMBIA AT 60	3
2.1	INTRODUCTION	3
2.2	STUDENT POPULATION IN HIGHER EDUCATION INSTITUTIONS	3
2.3	ACADEMIC STAFF IN HIGHER EDUCATION INSTITUTIONS IN ZAMBIA	7
2.4	NUMBER AND DISTRIBUTION OF HEIS IN ZAMBIA, 2024	10
2.5	CONCLUSION	11
CHAPTER 3 :	ZAMBIA AT 60: THE STATE OF HIGHER EDUCATION IN ZAMBIA	12
3.1	INTRODUCTION	12
3.2	HISTORICAL OVERVIEW	12
3.3	MASSIFICATION AND DIVERSIFICATION	12
3.4	ACHIEVEMENTS OF THE HIGHER EDUCATION SUB-SECTOR	13
3.5	PERSISTENT AND EMERGING CHALLENGES	14
3.6	CONCLUSION AND POLICY RECOMMENDATIONS	14
CHAPTER 4:	EQUITY, ACCESS AND INCLUSIVENESS IN HIGHER EDUCATION IN ZAMBIA: PROGRESS AND GAPS	17
4.1	INTRODUCTION	17
4.2	BRIDGING THE GENDER DIGITAL EQUITY GAP IN ZAMBIAN HIGHER EDUCATION: A SYSTEMATIC REVIEW OF PARTICIPATORY STEM INTERVENTIONS TARGETING MARGINALISED GIRLS AND YOUNG WOMEN	23
CHAPTER 5:	QUALITY OF TEACHING AND LEARNING IN HIGHER EDUCATION IN THE FOURTH INDUSTRIAL REVOLUTION	27
5.1	INTRODUCTION	27

5.2 ASSESSING QUALITY ASSURANCE PRACTICES IN HIGHER EDUCATION: A CASE OF ZAMBIA UNIVERSITY COLLEGE OF TECHNOLOGY 27
5.3 ASSESSING THE ADOPTION OF THE ASSOCIATION OF COLLEGE AND RESEARCH LIBRARIES INFORMATION LITERACY FRAMEWORK IN ZAMBIAN UNIVERSITY LIBRARIES 39
5.4 NAVIGATING THE FUTURE OF HIGHER EDUCATION: TREND ANALYSES IN OPEN DISTANCE EDUCATION AND ITS RELEVANCE TO ZAMBIA'S EDUCATION SUB-SECTOR 45
CHAPTER 6 : GLOBALISATION AND INTERNATIONALISATION IN HIGHER EDUCATION 58
6.1 INTRODUCTION 58
6.2 THE STATE OF INTERNATIONALISATION IN ZAMBIAN HIGHER EDUCATION INSTITUTIONS 58
REFERENCES 68
CHAPTER 7 : POLICY IMPLICATIONS AND FUTURE STRATEGIC DIRECTIONS 69
7.1 POLICY IMPLICATIONS 69
7.2 FUTURE STRATEGIC DIRECTIONS 69
7.3 STRATEGIC OUTLOOK 70

RUSANGU UNIVERSITY

ADMISSION FOR 2025 ACADEMIC YEAR



Enrol with Us Now

UNDER THE FOLLOWING SCHOOLS:

SCHOOL OF BUSINESS
SCHOOL OF EDUCATION
SCHOOL OF HEALTH SCIENCES
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
SCHOOL OF SCIENCE AND TECHNOLOGY
SCHOOL OF GRADUATE STUDIES

Full Time
January, May and September intake

Block Release (Blended)
February and July intake

Call us today on 0976271138

or visit our website : ru.edu.zm

ABOUT THE TECHNICAL COMMITTEE

The Technical Committee for the development of the 2024 State of Higher Education in Zambia Report was constituted by the Director-General of the Higher Education Authority (HEA), in accordance with the provisions of the Higher Education Act, 2013, Part II Section 6 (2) (b) (ii), which mandates the Authority to cause the publication of an annual report on the state of higher education in Zambia.

The Committee comprised members of HEA Management and Staff, and selected academic experts drawn from various disciplines. These experts were appointed for their extensive experience in higher education research, policy analysis, institutional management, and quality assurance, key areas necessary to ensure that the report provides a comprehensive, evidence-based assessment of trends, challenges, and progress in Zambia's higher education sector.

- **Professor Kazhila C. Chinsembu,** the Director-General of Zambia, champions the transformation of higher education to make it more practical, inclusive, and development-oriented. He calls for the decolonisation of the system to ensure universities address national needs rather than replicate colonial models. His vision emphasises curriculum reform, research-driven innovation, and industry alignment to enhance graduate employability and national productivity. Professor Chinsembu advocates for strong quality assurance, improved governance, and sustainable funding mechanisms. He envisions universities as engines of innovation, entrepreneurship, and societal transformation, central to achieving Zambia's Eighth National Development Plan.

- **Professor Daniel Ndhlovu** was the Chairperson of the Technical Committee on the 2024 State of Higher Education in Zambia Report. He holds a Doctor of Philosophy in Special Education. He works at the University of Zambia (UNZA) and is a Professor of Guidance and Counselling. Professor Ndhlovu has immensely contributed to the development of teacher education, particularly in special education, guidance and counselling in Zambia and beyond. This has earned him the honour of the title, The Father of Guidance and Counselling in Zambia

- **Dr Martin Mushumba** serves as the Director of Quality Assurance at the Higher Education Authority (HEA). He holds a Doctor of Philosophy (PhD) in Education, specialising in Education Policy and Higher Education Quality Assurance from Manipur University, India. Since 2023, Dr Mushumba has led HEA's Quality Assurance Department, which is central to the Authority's mandate to promote and maintain standards in higher education across Zambia.

- **Dr Charity Meki-Kombe** is a Senior Lecturer and Director of Postgraduate Studies at Mulungushi University, Zambia. She is specialised in educational management and policy, and leadership. Her research interests include policy implementation, higher education (with a focus on internationalisation and quality assurance), educational assessment, and inclusive education. With a strong publication and presentation record, she has held various leadership roles and collaborated with local and international institutions, showcasing her commitment to advancing education in Zambia and globally.

- **Dr John Chileshe** is an independent education consultant. He obtained his Doctor of Philosophy from the University of Sussex, and has more than two decades of experience serving at the University of Zambia as a lecturer, researcher, and administrator. Dr Chileshe has also served as a member of the Board of the Zambian Governance Foundation, and as a member of the Board of the Zambia Qualifications Authority, from 2020 to 2025.

- **Professor Eustarckio Kazonga** is a Professor of Biostatistics in the Department of Public Health, School of Medicine and Health Sciences at the University of Lusaka (UNILUS). He has previously been involved in Zambian governance and policy-making as he performed political and administrative leadership. He has also served as a Member of Parliament and held three different ministerial positions, namely, Deputy Minister of Defence, Minister of Local Government and Housing, and Minister of Agriculture and Cooperatives. Professor Kazonga has published over 60 peer-reviewed journal articles on biostatistics, epidemiology and public health.

- **Professor Franc**is Simui is a distinguished academic and education expert currently serving at the University of Zambia. He holds a Doctor of Philosophy (PhD) in Education from the University of Zambia, with extensive experience in open and distance learning, quality assurance, and higher education management. Professor Simui has contributed significantly to policy development, research, and capacity building in Zambia's higher education sector and has been instrumental in advancing innovations in learner support systems and inclusive education.

- **Mr Denny Nsokolo** is the Acting Manager – Standards, Research and Institutional Audits. He served as the Higher Education Authority (HEA) Team Lead for the Drafting Committee. Mr Nsokolo holds a Master of Arts Degree in Economics and a Bachelor of Arts Degree in Economics, both obtained from the University of Zambia (UNZA). He is currently pursuing his Doctor of Philosophy in Economics at the University of Johannesburg, South Africa.

- **Mrs Petronella Lesa Chilando-Nkandu** is the Acting Senior Standards and Research Officer. She served as Secretary for the Drafting Committee.

- **Ms Mitchelle K. Chiyala** is Standards and Research Officer. She served as Co-Secretary for the Drafting Committee.

- **Mr Birbal Boniface Musoba** is the Corporate Communications Officer of the HEA. He is a member in good standing with the Zambia Institute of Public Relations and Communication (ZIPRC) and was nominated in 2025 by ZIPRC for Best Public Relations Practitioner and Best Spokesperson. Mr Musoba holds a Double Major Honours' Bachelor of Arts Degree in Media and Performance Arts Studies from the University of Namibia (UNAM) and is currently pursuing a Master's of Science in Corporate Communications at the University of Zambia's (UNZA), Graduate School of Business.



Caption: L-R) Mrs Chilando-Nkandu; Dr Chileshe; Mr Nsokolo; Professor Ndhlovu; Dr Meki-Kombe; Professor Kazonga; and Mr Musoba during the finalisation workshop on the State of Higher Education in Zambia Report - 2024

PROGRAMMES ON OFFER APPLY NOW!!!

All degrees are available through Open, Distance and e-Learning (ODeL)

SCHOOL OF BUSINESS

UNDERGRADUATE DEGREES

- Bachelor of Accounting
- Bachelor of Accounting and Finance
- Bachelor of Arts in Financial Services
- Bachelor of Science in Finance and Investment Management
- Bachelor of Science in Banking and Finance
- Bachelor of Science in Procurement and Supply Chain Management
- Bachelor of Business Administration
- Bachelor of Business Entrepreneurship
- Bachelor of Science in Marketing Management

POSTGRADUATE DEGREES

- Doctor of Business Administration
- Master of Business Administration
- Master of Science in Financial Services
- Master of Science in Procurement and Logistics
- Master of Science in Accounting and Finance
- Master of Business Administration - Finance
- Master of Science in Business Leadership and Management
- Master of Science in Financial Risk Management
- PhD in Business
- MSc in Digital Marketing Management

SCHOOL OF COMPUTING, TECHNOLOGY & APPLIED SCIENCES

UNDERGRADUATE DEGREES

- Bachelor of Science in Computer Science
- Bachelor of Science in Networks Engineering
- Bachelor of Science in Software Engineering
- Bachelor of Science in Cyber Security
- Bachelor of Science in Information Technology
- Bachelor of Science in Computing with Education
- Bachelor of Science in Computing with Business
- Bachelor of Science in Cyber Security and Crime Science
- Bachelor of Science in Data Science

POSTGRADUATE DEGREES

- Master of Science in Information Technology
- Master of Science in Computer Science
- Master of Science in Data Science
- Master of Science in Cyber Security
- Master of Science in Artificial Intelligence
- Doctor of Philosophy in Computer Science
- Doctor of Philosophy in Computing and Data Science
- Doctor of Philosophy in Information Systems
- Doctor of Philosophy in Information Technology

PROFESSIONAL DIPLOMAS

- Diploma in Computing - NCC Education, UK
- Diploma in Cyber Security - NCC Education, UK
- Diploma in Business and Information Technology - NCC Education, UK

SCHOOL OF SOCIAL SCIENCES

UNDERGRADUATE DEGREES

- Bachelor of Science in Development Studies
- Bachelor of Arts Economics
- Bachelor of Arts Public Administration and Management
- Bachelor of Science Monitoring and Evaluation
- Bachelor of Economics and Finance
- Bachelor of Arts in Human Resource Management

NEW PROGRAMMES

- Bachelor of Arts in Early Childhood Education with ICT
- Bachelor of Arts in Primary Education with ICT
- Bachelor of Arts in Mathematics Education with ICT
- Bachelor of Arts in Civic Education and ICT

POSTGRADUATE DEGREES

- Postgraduate Diploma in Project Management
- Master of Science in Economics and Finance
- Master of Science in Project management
- Master of Science in Trade and Trade Policy
- MSc in Monitoring and Evaluation
- Postgraduate Diploma in Teaching Methodology

SCHOOL OF LAW

UNDERGRADUATE DEGREES

- Bachelor of Laws (LLB)
  Available on full time, evenings & ODeL
- Bachelor of Laws (LLB)-Commercial Law
  Available on full time, evenings & ODeL

POSTGRADUATE DEGREES

- Master of Laws in Taxation and Investment Law
- Master of Laws in Corporate and Commercial Law
- Master of Law, Labour Law and Practice
- Master of Law (by Research)



Apply easily and conveniently at esis.zcasu.edu.zm

Email: agatha.shikati@zcasu.edu.zm | mambwe.chimba@zcasu.edu.zm **Landline:** +260 211 222 508 | +260 211 232 183 | **Mobile Phone:** +260 950 003 529 | +260 964 642 928 | +260 766 717 398 | **Website:** www.zcasu.edu.zm | **WhatsApp:** +260 971 745 541

FOREWORD

The State of Higher Education in Zambia Report - 2024 marks an important milestone in the nation's higher education trajectory. Guided by the theme 'Higher Education in Zambia at 60,' the report reflects on sixty years of sub-sector growth while providing a rigorous assessment of current performance. It offers a consolidated evidence-based analysis that enables stakeholders to understand achievements, ongoing challenges, and the sub-sector's capacity to contribute to national human resource development.



It delivers a comprehensive analysis of policy and legal reforms, infrastructural development, students' enrolment and staffing patterns, equity and inclusiveness in the higher education sub-sector. It also examines the quality of teaching and learning in the context of the Fourth Industrial Revolution and Zambia's engagement in global higher education systems.

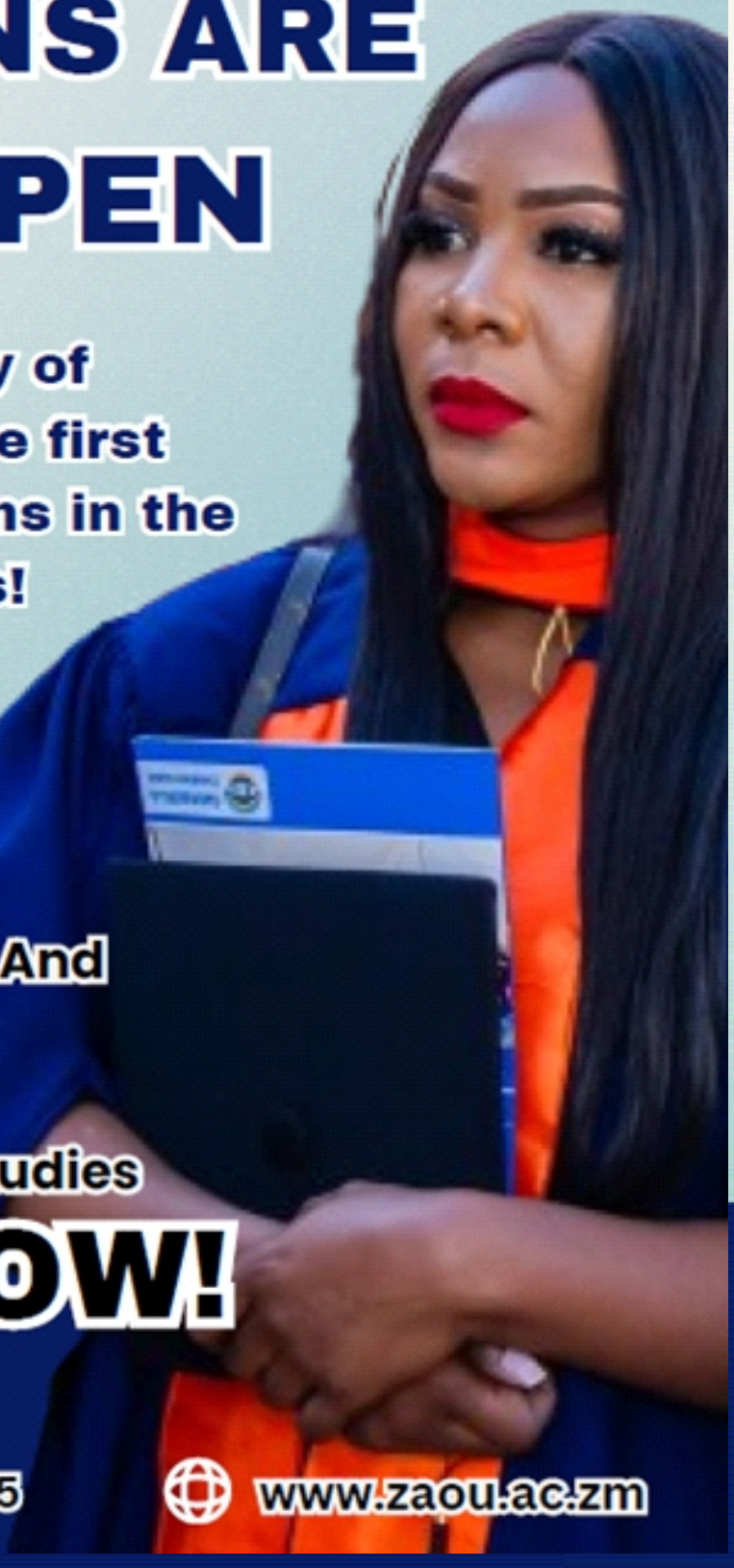
The insights offered reinforce accountability and guide reforms aimed at enhancing governance, access, equity, quality and global competitiveness. As Zambia reflects on sixty years of higher education, this report calls for consolidation and continued commitment to building a more resilient, inclusive, and innovative system aligned with evolving socioeconomic needs, in conformity with Zambia's national aspirations as outlined in Vision 2030. It is expected to contribute to informed decision-making and long-term planning that will shape the next era of higher education in the country.

Guided by the theme **'Higher Education in Zambia at 60,'** the report reflects on sixty years of sub-sector growth while providing a rigorous assessment of current performance

Hon. Douglas M. Syakalima, MP.
MINISTER OF EDUCATION

Zambian Open University

ADMISSIONS ARE NOW OPEN



Join our community of achievers and take the first step towards your dreams in the following schools!

- School Of Business
- School Of Law
- School of Agricultural Sciences
- School Of Humanities And Social Sciences
- School Of Education
- School Of Graduate Studies

APPLY NOW!

admissions@zaou.ac.zm

+260764108732/260976123055

www.zaou.ac.zm

ACKNOWLEDGEMENTS



I wish to extend my sincere appreciation to all those who contributed to the development and publication of the **2024 Report on the State of Higher Education in Zambia, whose theme is Higher Education in Zambia at 60.**

This year's report marks a significant milestone as it reflects on six decades of growth, transformation, and resilience in Zambia's higher education landscape. I am deeply grateful to the External Technical Committee Members, ably chaired by Professor Daniel Ndhlovu, and composed of Professor Francis Simui, Professor Eustarckio Kazonga, Dr Charity Meki-Kombe, and Dr John Chileshe, whose scholarship, dedication, and collaborative spirit shaped this report.

I equally acknowledge the leadership of the Higher Education Authority (HEA) team on the Technical Committee, led by Mr Denny Nsokolo, Acting Manager – Standards, Research and Institutional Audits, for coordinating the process with diligence and professionalism. To the management and staff of the Higher Education Authority, thank you for your invaluable technical support, research input, and commitment throughout the report's production.

This year's report marks a significant milestone as it reflects on six decades of growth, transformation, and resilience in Zambia's higher education landscape.

Special thanks are also due to our partners across Higher Education Institutions (HEIs), whose contributions, feedback, and data have enriched this publication and ensured its relevance to Zambia's current higher education realities.

Finally, I wish to express profound gratitude to the Ministry of Education and the Board of the Higher Education Authority, for their continued guidance and support in advancing the quality, accessibility, and impact of higher education in Zambia.

As we commemorate 60 years of higher education, this report not only documents our journey, but also invites collective introspection and re-dedication to shaping the next chapter of Zambia's educational excellence.

Professor Kazhila C. Chinsembu
DIRECTOR-GENERAL
HIGHER EDUCATION AUTHORITY

GEORGE BENSON CHRISTIAN UNIVERSITY COLLEGE

OVERVIEW OF GEORGE BENSON CHRISTIAN UNIVERSITY COLLEGE



George Benson Christian University College, initially established as George Benson Christian College of Education in 1995, is a distinguished private, non-profit institution dedicated to higher learning with a specialization in teacher training. The institution is an outreach arm of Namwianga Mission, a Church of Christ-funded organization. Namwianga Mission is legally registered under the Societies Act Cap 119 and the Land Perpetual Succession Act Cap 186 of the Laws of Zambia.

The college was founded to address the pressing need for well-trained teachers in Zambia, adhering to the principles of Christian Education and Service. Over the years, it has earned a reputation for its commitment to academic excellence and moral integrity. In 2020, George Benson Christian College of Education underwent a significant transformation, evolving into George Benson Christian University College. This transition marked a new era of growth and development, allowing the institution to expand its academic offerings. The University College is now registered with the Higher Education Authority, enabling it to provide a range of degree programs across various disciplines. This accreditation underscores the institution's adherence to high academic standards and its dedication to producing graduates who are well-prepared to contribute to their communities and the nation.

George Benson Christian University College remains steadfast in its mission to deliver quality education rooted in Christian values. The institution continues to play a pivotal role in the educational landscape of Zambia, shaping future leaders and educators who are equipped with the knowledge, skills, and ethical foundation necessary to make a positive impact in society.

Program	Mode Of Study	Entry Requirements
1. Bachelor of Arts with Education Mathematics and Religious Studies	**Full Time**	Five 'O' levels including English 'O' Level Merits in the Teaching Subjects
2. Bachelor of Education Arts with Education English Language and Religious Studies	**Full Time**	Five 'O' levels including English 'O' Level Merits in the Teaching Subjects
3. Bachelor of Arts with Education History and Religious Studies	**Full Time**	Five 'O' levels including English 'O' Level Merits in the Teaching Subjects
4. Bachelor of Arts with Education Mathematics and Business Studies	**Full Time**	Five 'O' levels including English 'O' Level Merits in the Teaching Subjects
7. Secondary Teachers' Diploma in the following subjects: ▸ Business Studies ▸ Integrated Science ▸ Computer Studies & Mathematics ▸ Computer Studies & English Language ▸ Zambian Languages and Religious Education ▸ Mathematics and Religious Education ▸ Social Studies	**Full Time & Distance**	Five 'O' levels including English 'O' Level Merits in the Teaching Subjects Primary Teachers' certificate/Early Childhood.

WHY STUDY WITH US

- We are located in a serene and ideal study environment away from noise of town
- We have dedicated and experienced teaching stuff
- We are an institution with a Christian emphasis, instilling Christian values in our students
- Competitive fees with flexible payment terms.
- 24/7 WIFI for all students
- Well-stocked and up to date physical and E- library.

CONTACT US
P.O BOX 620022, KALOMO – ZAMBIA.
EMAIL: principal@zambiamission.org | Cell: 0977 325659 / 0976 443370 / 0977 836021

EXECUTIVE SUMMARY

The Higher Education Act No. 4 of 2013 mandates the Higher Education Authority to publish, on an annual basis, The State of Higher Education Report. The 2024 Report, themed 'Higher Education in Zambia at 60,' coincides with Zambia's 60th independence anniversary. This national milestone provides an opportunity for HEA to reflect on the progress and challenges that have shaped Zambia's higher education landscape over the past six decades, while envisioning the future of the sector.

The report draws on data collected through an HEA-administered survey of all higher education institutions (HEIs) and validated through on-site visits. It also comprises peer-reviewed manuscripts submitted by independent authors in response to a call for papers that was made by the Authority. These combined sources provide a comprehensive view of the current state of higher education in Zambia, its achievements, emerging issues, and areas requiring policy attention.

Zambia's higher education sub-sector continues to experience rapid expansion. The total student enrolment increased from 119,272 in 2019 to 234,448 in 2024, representing a 96.6 per cent growth. This expansion is attributed to the rise of distance and online learning, the inclusion of more colleges under HEA's regulatory mandate, and increased government scholarship support. Enrolment in 2024 was almost evenly distributed between public and private HEIs, with 51 per cent of the students in public institutions and 49 per cent in private ones. This balance demonstrates the pivotal role the private sector plays in expanding access to tertiary education. Gender parity has also improved, with female students constituting 49 per cent of the total enrolment, reflecting growing inclusivity across the sector. Zambia has additionally emerged as a regional hub for higher education, hosting 9,236 international students in 2024, whose presence contributes to academic diversity and knowledge exchange.

Despite these gains, challenges persist. The gender gap among academic staff remains wide, with only 24 per cent of the teaching personnel being female. Structural challenges such as inadequate funding, limited infrastructure, and the need to strengthen internal quality assurance mechanisms continue to affect institutional performance. Misalignment between learning programmes and labour-market needs also undermines graduate employability. Addressing these challenges requires sustained investment in staff development, research, and innovation.

Sixty years after independence, Zambia's higher education sector stands at a pivotal moment. The progress achieved in access and regulatory oversight reflects a maturing higher education system that continues to evolve in response to national development goals. However, realising the full potential of higher education as a driver of inclusive and sustainable growth will depend on deepening reforms in financing, internal quality assurance, and equity. This report provides evidence-based insights to guide stakeholders in strengthening the contribution of higher education to human capital development and national transformation.



ACRONYMS AND ABBREVIATIONS

4IR	Fourth Industrial Revolution
8NDP	Eighth National Development Plan
AI	Artificial Intelligence
CBU	Copperbelt University
CDC	Curriculum Development Centre
HEA	Higher Education Authority
HEI	Higher Education Institution
ICT	Information and Communication Technology
IoC	Internationalisation of the Curriculum
ISTP	Institution for the Specialised Training of Professionals in a Specified Field
MOOC	Massive Open Online Course
NSTC	National Science and Technology Council
ODE	Open Distance Education
OER	Open Educational Resources
QA	Quality Assurance
RPL	Recognition of Prior Learning
SADC	Southern African Development Community
SDG	Sustainable Development Goal (UN)
STEM	Science, Technology, Engineering, and Mathematics
SZI	SMART Zambia Institute
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNZA	University of Zambia
ZAQA	Zambia Qualifications Authority
ZICTA	Zambia Information and Communications Technology Authority
ZQF	Zambia Qualifications Framework
ZSG-QA	Zambia Standards and Guidelines for Quality Assurance

LIST OF TABLES

TABLE 1.0:	Student Population by Category of Higher Education Institutions (HEIs)	3
TABLE 2.0:	Top 10 HEIs by Student Enrolment, 2024	4
TABLE 3.0:	Number of International Students in Universities in Zambia, 2024	7
TABLE 4.0:	Top 5 Countries with the Highest Number of International Students in Zambia, 2024	7
TABLE 5.0:	Number and Gender of Academic Staff in HEIs, 2024	8
TABLE 6.0:	Academic Staff by Level of Qualification, 2024	8
TABLE 7.0:	Number of HEIs by Type in Zambia, 2024	10
TABLE 8.0:	Levels of Gender Responsiveness in Educational Interventions	21
TABLE 9.0:	Theoretical Frameworks Informing Gender-Transformative Digital STEM Education Theoretical Framework	23
TABLE 10.0:	Evaluation of the Existing Quality Assurance Policies and Procedures at ZUT	30
TABLE 11.0:	Student Perception and Experiences Concerning Quality Assurance Practices at ZUT	32
TABLE 12.0:	Perceptions and Experiences on Quality Assurance	33
TABLE 13.0:	Breakdown of University Categories	42
TABLE 14.0:	Demographic Characteristics	42
TABLE 15.0:	Recruitment of International Students and Staff and Joint Programmes, 2015-2019	62
TABLE 16.0:	Number of International Students in Universities in Zambia, 2024	63
TABLE 17.0:	Top 5 Countries with the Highest Number of International Students in Zambia, 2024	63

LIST OF FIGURES

FIGURE 1.0:	Distribution of Students by Gender and Category of HEI	6
FIGURE 2.0:	Percentage Distribution of Academic Staff by Qualification Level	10
FIGURE 3.0:	PRISMA Flow Diagram Illustrating the Process of Study Selection from Identification to Inclusion	19
FIGURE 4.0:	The Extent to Which Information Literacy Instruction is Informed by the Framework for Information Literacy for Higher Education	43
FIGURE 5.0:	PRISMA Flow Diagram illustrating the process of study selection from identification to inclusion	50

WHAT WE DO

The work of the Authority is, among others, to:

- Register private universities and colleges.
- Accredit learning programmes offered in both private and public universities and colleges.
- Develop and monitor standards in universities and colleges.
- Conduct institutional audits, inspections and surveillances of institutions operating in the higher education sector.
- Undertake classifications of both private and public universities.
- Manage the database of all students in higher education institutions.
- Advise the Minister on any aspect of higher education.



Follow us
@HEAZambia on:

#HEAZambia
#HigherEducationZambia

CHAPTER 1: **OVERVIEW OF THE REPORT**

Charity Meki-Kombe

1.1 Introduction

This report, 'The State of Higher Education in Zambia 2024: Higher Education in Zambia at 60,' marks a significant milestone in the nation's tertiary education landscape. The report provides a comprehensive overview of Zambia's higher education evolution and growth six decades after independence. It examines the journey from a system with no university at independence, to a dynamic, mixed-model sector comprising over 200 public and private institutions. The report celebrates progress while also addressing persistent challenges, including issues of quality, equity, access, and the need to align higher education with the demands of the Fourth Industrial Revolution and Zambia's national development goals, as outlined in Vision 2030.

1.2 Structure of the Report

This report is organised into seven core chapters, each addressing a critical dimension of higher education in Zambia. Chapter One is an Overview of the Report. It provides an outline of the report while Chapter Two focuses on the Statistics in Higher Education in Zambia at 60. It presents a comprehensive quantitative analysis of student enrolment and academic staff, highlighting trends in access, equity, and human resource capacity within the sector. Chapter Three focuses on The State of Higher Education in Zambia – 2024. It provides an in-depth review of the historical evolution of higher education, legal reforms, quantitative expansion, and key achievements. It also proposes strategic policy directions aimed at guiding the next phase of higher education development in Zambia, offering a detailed, data-driven overview of the sub-sector and its emerging trends. Chapter Four looks at Equity, Access and Inclusiveness issues of gender and digital equity in higher education. It provides a systematic review of participatory STEM interventions designed to support marginalised girls and young women. Chapter Five is on Quality of Teaching and Learning evaluates various dimensions of educational quality in the context of the Fourth Industrial Revolution, using case studies to examine quality assurance practices and the role of information literacy in enhancing learning outcomes. Chapter Six focuses on Globalisation and Internationalisation exploring Zambia's engagement in the global higher education landscape. It also analyses patterns of international collaboration, student mobility, and cross-border education. Finally, Chapter Seven: Implications for Policy and the Future of Higher Education in Zambia synthesises the findings from the preceding chapters and outlines key policy implications, offering forward-looking recommendations to strengthen the country's higher education system in a rapidly changing global context.

1.3 Sources of Data for the Report

The report is based on a multifaceted evidence base, drawing from both primary and secondary sources as follows:

- HEA Administrative Records: Official data on registered HEIs, including their numbers, types, and distribution as listed in the Special Gazette No. 61 of 2025.
- Comparative Baseline Data: Where possible, data is compared with previous reports (e.g., the 2019 State of Higher Education Report) to illustrate trends and measure progress.
- Institutional Survey Returns: Data compiled directly from both public and private universities, university colleges, and colleges for the 2024 academic year. This includes vital statistics on student enrolments and academic staff.
- Scholarly Research and Case Studies: The report incorporates original research articles and systematic reviews commissioned for this publication, which provide in-depth analysis on specific themes like quality assurance, information literacy, and gender equity in STEM.
- National Policy Documents: Frameworks such as the Higher Education Act of 2013, the Eighth National Development Plan, and Vision 2030 also provide the policy context for the analysis in this report.

UNIVERSITY of LUSAKA

Passion for Quality Education: Our Driving Force



JANUARY 2026 ENROLLMENT IS OPEN!

POSTGRADUATE PROGRAMMES

1. Executive Master of Business Administration in Leadership and Wealth Creation
2. Master of Laws in Labour Law
3. Master of Arts in Development Studies
4. Master of Arts in Human Resource Management
5. Master of Business Administration
6. Master of Business Administration - Finance
7. Master of Business Administration in Health Care Management
8. Master of Law in Environmental Laws
9. Master of Law in General Laws
10. Master of Law in Human Rights Laws
11. Master of Laws in Banking and Finance Law
12. Master of Laws in Commercial & Corporate Law
13. Master of Laws in Competition Law
14. Master of Laws in Constitutional and Administrative Law
15. Master of Laws in Criminal Litigation
16. Master of Laws in Intellectual Property Law
17. Master of Laws in International Trade and investment Law
18. Master of Laws in Mineral Resources, Extraction and Law
19. Master of Laws in Public International Law
20. Master of Laws in Tax Law
21. Master of Peace and Security Studies
22. Master of Political Science and International Relations
23. Master of Public Administration
24. Master of Public Health
25. Master of Science in Accounting and Finance
26. Master of Science in Actuarial Science
27. Master of Science in Auditing
28. Master of Science in Computer Science
29. Master of Science in Cyber Security
30. Master of Science in Data Science
31. Master of Science in Development Economics
32. Master of Science in Economics and Finance
33. Master of Science in Environmental Management
34. Master of Science in Epidemiology and Biostatistics
35. Master of Science in Infectious Diseases
36. Master of Science in information Technology
37. Master of Science in Insurance and Pensions Management
38. Master of Science in Logistics and Transport Management
39. Master of Science in Marketing Management
40. Master of Science in Procurement and Supply Chain Management
41. Master of Science in Project Management
42. Master of Science in Public Finance and Taxation
43. Master of Science in Risk Management

The programmes consist of four (4) stages. The first three stages constitute the taught component while the fourth stage is the research/dissertation component. However, Master of Laws have only three (3) stages in which the first two stages are the taught component and the third stage is the research/dissertation component.

ENTRY REQUIREMENTS:

Applicants must have a first degree in a relevant field from a recognized University or full ACCA/CIMA. Applicants of Master of Laws (LLM) must be holders of a Bachelor of Laws degree from a recognized University.

DURATION: 18 - 24 MONTHS

MODE OF DELIVERY: PART-TIME & DISTANCE LEARNING

POSTGRADUATE DIPLOMA PROGRAMMES

- Postgraduate Diploma in Supervision and Examination of Students Research Projects
- Postgraduate Diploma in Quality Assurance in Higher Education
- Postgraduate Diploma in Teaching Methodology

DOCTORAL PROGRAMMES

1. Doctor of Business Administration
2. Doctor of Philosophy (PhD) in Business Administration
3. Doctor of Philosophy (PhD) in Human Resource Management
4. Doctor of Philosophy in Accounting and Finance
5. Doctor of Philosophy in Computer Science
6. Doctor of Philosophy in Cyber Security
7. Doctor of Philosophy in Data Science
8. Doctor of Philosophy in Development Studies
9. Doctor of Philosophy in Economics
10. Doctor of Philosophy in Education Management and Administration
11. Doctor of Philosophy in Environmental Management
12. Doctor of Philosophy in Information Technology
13. Doctor of Philosophy in Law
14. Doctor of Philosophy in Marketing
15. Doctor of Philosophy in Project Management
16. Doctor of Philosophy in Public Health

BACHELOR'S DEGREE PROGRAMMES

1. Bachelor of Accountancy
2. Bachelor of Arts in Development Studies
3. Bachelor of Arts in Economics
4. Bachelor of Business Administration
5. Bachelor of Laws
6. Bachelor of Medicine and Bachelor of Surgery
7. Bachelor of Pharmacy
8. Bachelor of Science in Actuarial Science
9. Bachelor of Science in Banking and Finance
10. Bachelor of Science in Biomedical Science
11. Bachelor of Science in Computer Science
12. Bachelor of Science in Cyber Security
13. Bachelor of Science in Economics and Finance
14. Bachelor of Science in Human Resource Management
15. Bachelor of Science in Information Systems and Technology
16. Bachelor of Science in Insurance and Pensions Management
17. Bachelor of Science in Logistics and Transport Management
18. Bachelor of Science in Marketing
19. Bachelor of Science in Nursing
20. Bachelor of Science in Politics and International Relations
21. Bachelor of Science in Public Health
22. Bachelor of Science in Purchasing and Supply Chain Management
23. Bachelor of Science Public Administration
24. Diploma in Nursing

Entry Requirements: Five (5) "O" level credits or better which must include English Language and Mathematics.

- Medicine & Surgery - "O" Levels graded Merit or better in Mathematics, Biology, Chemistry, & Physics
- Actuarial Science - Merit in Mathematics

Duration: Degree - 4 years | Diploma - 3 years | Medicine & Surgery - 6.5 years

Mode of Delivery: Full-time, Part-time and Distance learning

HOW TO APPLY?

Applicants can apply online via our official website: www.unilus.ac.zm by clicking "Apply Now" and following the instructions provided.

A non-refundable application fee is applicable as follows:

- Postgraduate Programmes: K250 for local and SADC applicants; $50 for international applicants
- Undergraduate Programmes: K200 for local and SADC applicants; $50 for international applicants

NOTE: THE GRADE 12 CERTIFICATE ("O" LEVEL RESULTS) AND OTHER QUALIFICATIONS SHOULD BE VERIFIED BY THE ZAMBIA QUALIFICATIONS AUTHORITY (ZAQA)

Mobile: +260 972 832 671 / +260 976075850 Email: admissions@unilus.ac.zm Web: www.unilus.ac.zm

CHAPTER 2: **STATISTICS IN HIGHER EDUCATION IN ZAMBIA AT SIXTY(60)**

Denny Nsokolo

2.1 Introduction

This chapter presents a detailed analysis of the 2024 vital statistics of Zambia's higher education sector, with a focus on two core components: student enrolments and academic staff. Statistics on academic staff and students are important for gauging access, equity, and human resource capacity across public and private Higher Education Institutions (HEIs). Data were compiled from both public and private universities, university colleges, colleges, and institutions for the specialised training of professionals in a specified field (ISTPs).

To provide a holistic picture of the higher education landscape in Zambia, this chapter also presents data on the number and distribution of HEIs, as listed in the Special Gazette No. 61 of 2025. This reflects the status of the higher education landscape as of December 2024. Statistics for both students and staff are disaggregated by gender and academic qualification levels. Statistics on the number and distribution of HEIs are presented by institutional type. Comparative analyses with these statistics reported in the inaugural report; the State of Higher Education in Zambia 2019, are also included to benchmark the pace and direction of change in enrolments, staffing, and institutional growth. Unless otherwise stated, all figures cited are drawn from HEA administrative records and institutional returns for the 2024 survey on HEIs.

2.2 Student Population in Higher Education Institutions

In 2024, the total number of students enrolled in HEIs stood at 234,448, up from 156,044 in 2019. This represents an increase of 78,404 students, or 50.3 per cent, over a period of five years. Of the total enrolment in 2024, 120,631 (51%) were male and 113,803 (49%) were female. This growth reflects key developments in Zambia's higher education landscape. First, the expansion of distance and online delivery has significantly widened the geographical reach of HEIs, enabling more students, particularly those in remote areas, to access tertiary education. Second, there has been a notable increase in the number of colleges under the regulatory aegis of HEA, many of which have been adopted from other regulatory bodies. Third, the extension of government scholarships to nine public universities has further enhanced access, encouraging more students to pursue higher education. Complementing these government scholarships, the introduction of Constituency Development Fund (CDF) scholarships has further expanded access to higher education, especially for students in rural constituencies who previously faced both financial and geographical barriers to pursuing tertiary studies.

Table 1.0: Student Population by Category of Higher Education Institutions (HEIs)

Category of HEI	Male	Female	Total	% Share
Public HEIs	60,021	58,979	119,000	51
Private HEIs	60,631	54,803	115,434	49
GRAND TOTAL	**120,652**	**113,782**	**234,434**	**100**

Source: *Higher Education Authority, 2024*

The distribution of students across HEIs, as presented in Table 2.1, reveals a relatively balanced sector in terms of institutional choice by students. Public HEIs account for 51 per cent of the total enrolments, maintaining a slight lead over private HEIs. This dominance reflects the large student

populations at the country's top public universities, notably the University of Zambia (UNZA), Copperbelt University (CBU), and Mulungushi University, which continue to attract substantial enrolments due to their diverse learning programmes.

Meanwhile, private HEIs continue to strengthen their position, accounting for 49 per cent of the total student enrolments. The near parity in enrolment between public and private HEIs demonstrates the private sector's increasing responsiveness to market demands and its growing capacity to deliver flexible learning options, including blended and distance education modes designed to accommodate working professionals and adult learners.

In addition, HEA's consistent enforcement of quality assurance standards across both public and private HEIs has enhanced public confidence in the credibility of private institutions. As a result, many students now view private HEIs as viable and competitive alternatives to public universities, particularly in programmes aligned with emerging labour market needs. This growing trust, underpinned by HEA's regulatory oversight, has significantly expanded access to higher education in Zambia.

Overall, these enrolments illustrate a dynamic mixed public–private higher education model, which has become a defining feature of Zambia's tertiary education landscape. This balance promotes competition and expanded opportunities for learners across different socio-economic and geographical backgrounds.

2.2.1 Distribution of Students by HEIs

Student enrolment in HEIs in Zambia remains highly concentrated within a few large universities that serve as leaders in the sector. The data presented in Table 2.2 shows that public universities continue to dominate in terms of total student numbers, while private universities are experiencing rapid growth, particularly through distance and online learning platforms that extend access beyond traditional urban campuses. Collectively, the institutions listed, account for a substantial proportion of total national enrolments, serving as anchor institutions that drive regional and national educational development.

Table 2.0: Top 10 HEIs by Student Enrolment, 2024

Institution	Category	Male	Female	Total
University of Zambia	Public	26,423	17,616	44,039
Copperbelt University	Public	13,491	12,983	26,474
Chalimbana University	Public	9,856	6,842	16,698
University of Lusaka	Private	6,693	9,041	15,735
Mulungushi University	Public	7,821	6,800	14,621
Levy Mwanawasa Medical University	Public	4,001	5,673	9,674
DMI University	Private	4,986	4,127	9,113
UNICAF University	Private	5,900	3,079	8,979
Cavendish University	Private	3,039	3,751	6,790
Eden University	Private	2,346	3,890	6,246
TOTAL >>		**84,556**	**73,802**	**158,369**

Source: *Higher Education Authority, 2024*

The University of Zambia remains the country's largest higher education institution with 44,039 students, reaffirming its status as Zambia's oldest university. Its diverse academic programmes continue to attract both local and international students. The Copperbelt University follows with 26,474 students, serving Zambia's industrial and mining sectors, while Chalimbana University and Mulungushi University, with 16,698 and 14,621 students respectively, strengthen public higher education through teacher education, social sciences, and flexible dual-mode learning that combines full-time and distance education.

In the private sector, the University of Lusaka leads with 15,735 students, driven by market-oriented programmes and flexible study options for working professionals. DMI St. Eugene University (9,113 students) and UNICAF University (8,979 students) also play key roles in widening access. DMI St. Eugene focuses on health and education training, while UNICAF's online and transnational model expands higher education to underserved regions.

Among specialised public universities, Levy Mwanawasa Medical University (9,674) stands out as the leading centre for health sciences training, offering specialised medical, nursing, and public health programmes that address Zambia's growing demand for healthcare professionals. Similarly, Cavendish University (6,790) has distinguished itself through its flexible study options, particularly in business, law, and health sciences, attracting both local and international students. Likewise, Eden University (6,246) continues to expand its influence in health and teacher education by offering community-focused programmes.

2.2.2 Student Distribution by Gender and Category of HEI

Figure 2.1 builds on Table 2.1 and presents the gender distribution of students enrolled in public and private HEIs in 2024. Overall, enrolments in HEIs in Zambia continue to be male-dominated. Out of the 234,434 students, 120,652 (51%) were males and 113,782 (49%) were females. The figure shows a major achievement in the narrowing of the gender gap in student enrolments across both categories of HEIs. In public HEIs, males accounted for 50.4 per cent of total enrolments, while females accounted for 49.6 per cent. Similarly, in private HEIs, males represented 52.5 per cent, and females 47.5 per cent of the total enrolments. For instance, when this publication started in 2019, at the bachelor's level, there were 50,413 male students against 45,351 female students enrolled in both public and private universities.

Overall, the figure highlights Zambia's continued progress in promoting inclusive access to higher education. Both public and private HEIs are playing complementary roles in narrowing the gender gap, demonstrating the effectiveness of national policies and institutional initiatives designed to enhance gender equality in tertiary education. Notable measures contributing to this progress include the introduction of reserved quotas for female applicants in some public universities and the implementation of application fee waivers for female applicants in some private HEIs. These interventions have collectively expanded educational opportunities for women.

A comparison of the gender composition of student enrolments in 2024 with the 2019 baseline shows notable progress toward gender parity across higher education institutions. In 2019, female students accounted for 44.5 per cent of the total enrolments in both public and private universities, reflecting a significant gender gap at the time. By 2024, the overall share of female students had risen to 48.7 per cent, with female enrolment reaching 49.6 per cent in public HEIs and 47.5 per cent in private HEIs. This steady improvement demonstrates the positive impact of national and institutional measures aimed at promoting inclusive access to tertiary education. These trends demonstrate that the higher education system in Zambia is gradually narrowing the gender-enrolment gap, although full parity has yet to be achieved.

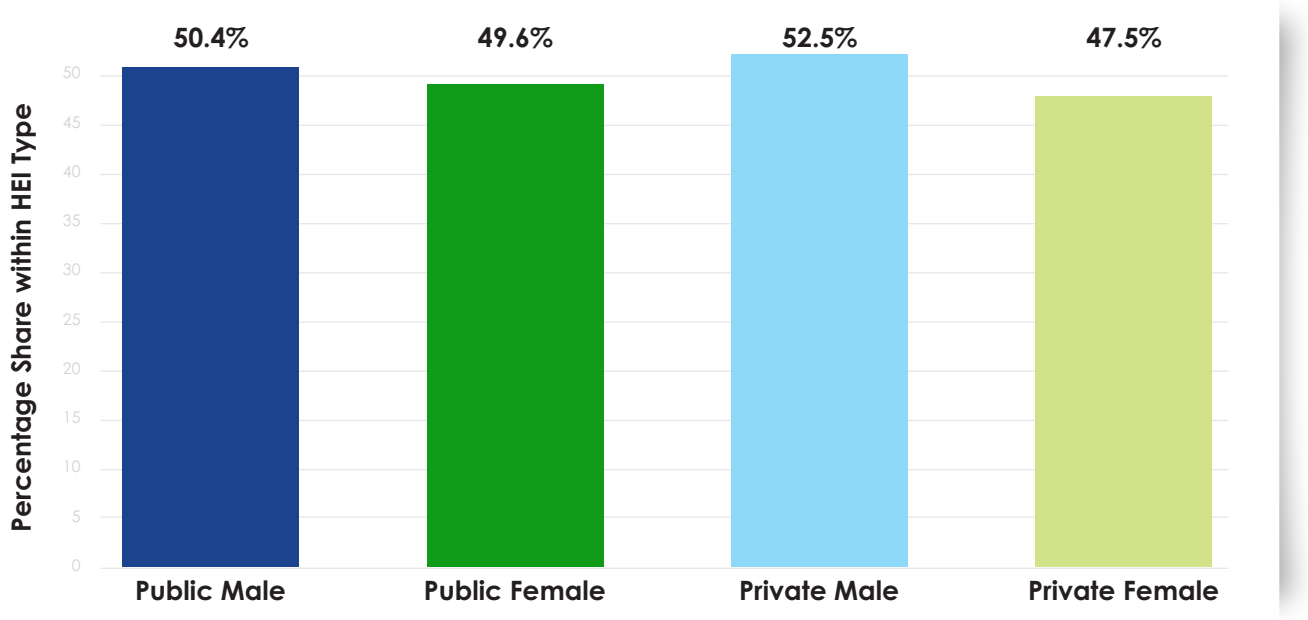


Figure 1.0: *Distribution of Students by Gender and Category of HEI* | ***Source:*** *Higher Education Authority, 2024*

2.2.3 International Students in HEIs in Zambia

Zambia continues to strengthen its position as a regional hub for higher education, attracting a growing number of international students from within the Southern African Development Community (SADC) and beyond. In 2024, the country recorded a total of 9,236 international students enrolled across various universities, reflecting Zambia's expanding role as a preferred destination for quality, affordable, and English-medium tertiary education.

As presented in Table 2.3, the majority of international students are concentrated in a few leading universities that have established strong regional and global academic linkages. UNICAF University hosted the largest number of international students at 4,005, accounting for nearly half of all international enrolments. This dominance reflects UNICAF's flexible online and transnational delivery model, which enables students across Africa to pursue Zambian-accredited degrees without relocating.

The University of Lusaka followed with 1,420 international students, primarily drawn from neighbouring SADC countries. Gideon Robert University enrolled 972 international students, highlighting the private sector's increasing contribution to regional higher education.

Among public universities, UNZA and CBU enrolled 876 and 764 international students, respectively. Mulungushi University (647) and Texila American University (552) also attracted notable numbers of international students, particularly in the fields of health sciences.

Collectively, these universities account for the majority of Zambia's international student population, reflecting the country's continued efforts to become a regional hub for international students.

Table 3.0: Number of International Students in Universities in Zambia, 2024

Name of University	International Students
UNICAF University	4,005
University of Lusaka	1,420
Gideon Robert University	972
University of Zambia	876
Copperbelt University	764
Mulungushi University	647
Texila American University	552
TOTAL	**9,236**

Table 2.4 shows that Zambia's international student population is largely drawn from neighbouring SADC countries. Zimbabwe remains the leading country of origin, contributing 2,647 students, followed by Namibia (1,421), Lesotho (348), Eswatini (206), and South Africa (164). The dominance of these countries reflects Zambia's geographical proximity and shared cultural ties. Additionally, the country's stable political environment and the quality assurance framework spearheaded by the Higher Education Authority have enhanced the global credibility and attractiveness of Zambian qualifications.

Table 4.0: Top 5 Countries with the Highest Number of International Students in Zambia, 2024

Name of Country	International Students
Zimbabwe	2,647
Namibia	1,421
Lesotho	348
Eswatini	206
South Africa	164
TOTAL	**4,786**

2.3 Academic Staff in Higher Education Institutions in Zambia

Academic staff are the cornerstone of quality education in higher education. Their numbers and qualifications directly influence an institution's ability to deliver high-quality teaching, generate research output, and engage effectively with communities and industry. The adequacy and distribution of academic staff are, therefore, key indicators of institutional capacity and sustainability within Zambia's higher education sub-sector.

Table 2.5 reports statistics on the number of academic staff in HEIs. In 2024, HEIs in Zambia reported a total of 6,089 academic staff, compared to 4,198 in 2019, representing a 14.5 per cent increase over five years. While this growth reflects a modest expansion in human resource capacity across HEIs, it falls short of the corresponding 50.3 per cent increase in student enrolment over the same period. Consequently, the student-to-staff ratio has widened significantly, placing pressure on teaching loads, research supervision, and internal quality assurance mechanisms.

Table 5.0: Number and Gender of Academic Staff in HEIs, 2024

Category of HEI	Male	Female	Total	% of Total
Public HEIs	1,579	732	2,311	38
Private HEIs	2,600	1,178	3,778	62
Total	**4,179**	**1,910**	**6,089**	**100**

Source: *Higher Education Authority, 2024*

Table 2.5 reveals that private HEIs employed a significantly larger share of the academic staff, accounting for 62 per cent, while public HEIs employed 38 per cent. This share reflects the continued expansion and consolidation of private sector participation higher education, which now represents the majority of registered HEIs in Zambia.

The dominance of private HEIs in academic employment demonstrates their increasing contribution to the delivery of higher education. Many private institutions rely on a flexible staffing model that combines full-time and part-time lecturers, enabling them to respond quickly to enrolment pressures and market demand for diverse programmes. However, as found by HEA, during institutional audits, this flexibility sometimes, comes at the expense of research output and staff stability, as many private HEIs operate primarily as teaching institutions with limited investment in research and innovation.

In contrast, public HEIs remain the foundation of Zambia's higher education system, providing advanced teaching, research, and postgraduate training. Institutions such as UNZA, CBU and Mulungushi University continue to host a significant portion of the country's most qualified academic personnel and research output. Nevertheless, the growth in staff numbers in public institutions has not kept pace with rising student enrolments, leading to increased teaching loads and reduced capacity for research supervision.

2.3.1 Academic Staff by Qualification

The qualification profile of academic staff is an important determinant of the quality, credibility, and competitiveness of a higher education institution. It reflects the human capital capacity of the HEI to deliver advanced teaching, conduct research, and contribute to national development. The level of qualification among academic staff also determines the ability of an HEI to offer postgraduate programmes, meet accreditation standards, and maintain the tier, as classified by HEA.

In 2024, HEIs reported a total of 6,089 academic staff, distributed across five qualification categories: doctoral, master's, bachelor's, diploma, and certificate holders. The data, as presented in Table 2.6, shows that the majority of academic staff possess postgraduate qualifications, although the proportion of those with doctoral degrees remains relatively low.

Table 6.0: Academic Staff by Level of Qualification, 2024

Qualification	Male	Female	Total	% of Total
Doctoral	1,026	247	1,273	20.9%
Master's	2,353	1,167	3,520	57.8%
Bachelor's	676	441	1,117	18.4%
Diploma	109	52	161	2.6%
Certificate	15	3	18	0.3%
Total	**4,179**	**1,910**	**6,089**	**100%**

Source: *Higher Education Authority, 2024*

Table 2.6 shows that nearly four out of five academic staff (78.7%) hold at least a master's degree, reflecting significant improvement in the academic qualification profile compared to earlier years. Specifically, 57.8 per cent hold a master's qualification, while 20.9 per cent have earned a doctoral degree. This distribution demonstrates that HEIs are responding to HEA's guidelines that require postgraduate qualifications to be the minimum qualifications for teaching, particularly within universities and university colleges.

However, the relatively small share of staff with doctoral degrees, points to continuing capacity constraints in research supervision, curriculum innovation, and postgraduate programme delivery. With fewer than one in five lecturers holding a PhD, the HEIs still have limited staff to offer mentorship to young academics and provide adequate supervisors for advanced research programmes. The limited pool of PhD-qualified academics also constrains institutional efforts to establish research centres of excellence, and attract international collaborations. This gap is evidenced by a handful of public HEIs that have established research centres of excellence such as UNZA and CBU.

The implication of having a shortage of PhD holders is that it limits HEI's ability to mount and supervise postgraduate programmes, particularly at the master's and doctoral levels. This contributes to heavy supervision loads for existing PhD holders and may delay student completion times. Expanding doctoral training opportunities through national scholarships, research funding, and international collaborations will be essential to building critical mass.
Moreover, while 57.8 per cent of staff hold master's, many of these staff serve as lecturers or senior lecturers in teaching-focused roles. While master's-level academics provide essential instructional capacity, their research productivity tends to be lower due to limited methodological training and supervision experience. To enhance research output, institutions will need to support the transition of master's degree holders into doctoral training, both locally and abroad.

Suffice to note, 18.4 per cent of staff who hold bachelor's degrees, including those holding lower qualifications, are primarily concentrated in colleges, such as colleges of education, and nursing colleges. These staff often deliver teaching at diploma and certificate level programmes in different colleges across the country.

Furthermore, Figure 2 shows that staffing levels in HEIs remains male-dominated, despite this report marking a gradual improvement compared to previous reporting periods, when women accounted for less than 30 per cent of academic staff. At the doctoral level, 80.6 per cent of academics were male (1,026) compared to only 19.4 per cent female (247). This imbalance is particularly concerning because doctoral qualifications form the foundation for promotion to senior academic ranks such as associate professor and professor. The underrepresentation of women at this level limits their visibility in scholarly networks and perpetuates gender imbalances in academic leadership and institutional decision-making.

The master's degree category, which constitutes the largest group of academic staff, shows a slightly better gender distribution. Of the 3,520 master's degree holders, 67 per cent were male and 33 per cent were female. Similarly, at the bachelor's degree level, the gender gap narrows further, with 60.5 per cent male and 39.5 female staff. This group largely comprises younger academics and early-career lecturers working in teacher education colleges, health colleges, and emerging private university colleges that offer diploma programmes. The relatively higher female participation at this level indicates that more women are entering academia, although their progression to higher qualifications remains limited.

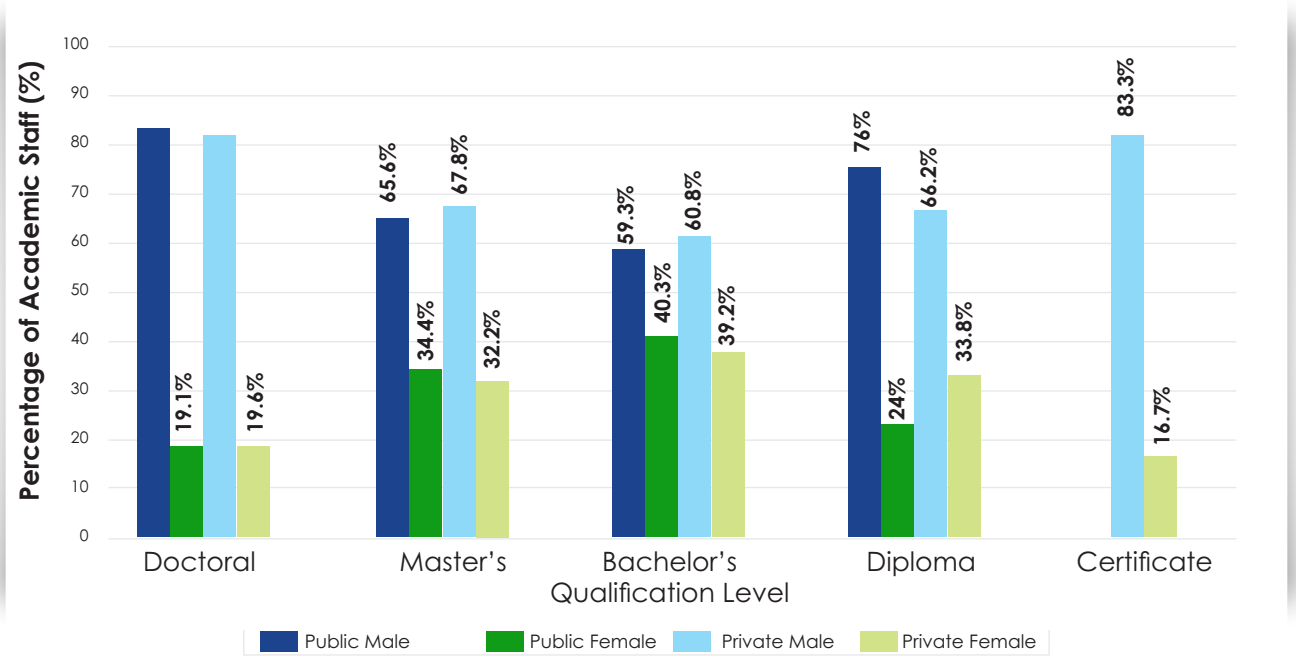


Figure 2.0 *Percentage Distribution of Academic Staff by Qualification Level* | ***Source:*** *Higher Education Authority, 2024*

2.4 Number and Distribution of HEIs in Zambia, 2024

As of December 2024, there were a total of 201recognised public and registered private HEIs in Zambia. This figure comprises universities, university colleges, colleges, and ISTPs. This distribution highlights a rapidly expanding and increasingly diversified higher education landscape, with private institutions accounting for the majority of HEIs. The statistics on the number of HEIs are presented in Table 2.7.

Table 7.0: Number of HEIs by Type in Zambia, 2024

Type of HEI	Public	Private	Total
Universities	10	51	**61**
University Colleges	1	14	**15**
Colleges	25	93	**118**
ISTPs	3	4	**7**
Total	**39**	**162**	**201**

Source: *Higher Education Authority, Special Gazette No. 61 of 2025*

Table 2.7 further indicates that Zambia's higher education sector is predominantly private-led, with 162 private HEIs representing approximately 81 per cent of the total, compared to 39 public HEIs at 19 per cent. This distribution reflects the increasing liberalisation and privatisation of the higher education sector, particularly over the past decade, which has encouraged private investment in tertiary education as a means of expanding access and complementing government efforts in the provision of higher education.

Specifically, there were 61universities, including 10 public and 51 private universities, making universities the most visible providers of higher education in Zambia. The university college category, comprising 15 institutions (1 public and 14 private), represents a growing transitional tier within Zambia's tertiary system. The HEA introduced this category of HEIs in 2021, to serve as developmental stages toward full university status, restricting them to offering degree and diploma programmes.

Furthermore, there were a total of 118 colleges (25 public and 93 private). The large number of private colleges indicates strong private sector participation in professional and technical education, complementing public colleges in offering lower-level education such as diploma and certificate levels.

Spatially, growth has extended beyond the traditional hubs of Lusaka and Copperbelt, with new registrations in Eastern, Muchinga, Luapula, and Western Provinces. This geographic spread aligns with broader goals to decentralise higher education opportunities across the country. Nevertheless, rapid expansion poses regulatory challenges, which HEA seeks to address by establishing regional offices to ensure regular audits to safeguard educational standards.

2.5 Conclusion

The 2024 vital statistics confirm that Zambia's higher education sector is expanding in both scale and diversity. Student enrolments grew by over 96 per cent since 2019, while academic staffing rose by 14.5per cent. At the same time, gender parity among students approached balance, although a pronounced gap remains among academic staff. The number of HEIs increased substantially to 201 HEIs, with the private sector accounting for the majority of HEIs.

CHAPTER 3: **ZAMBIA AT 60: THE STATE OF HIGHER EDUCATION IN ZAMBIA**

Daniel Ndhlovu - University of Zambia, Petronella L. Chilando, and Mitchelle K. Chiyala- Higher Education Authority

3.1 Introduction

Marking sixty years of independence provides an opportunity to reflect not only on the political and economic trajectory of the country but also on the strides made in Zambia's higher education system, since the 1960s. The Government of the Republic of Zambia (GRZ) recognises higher education in national development plans and Vision 2030 as a key driver of human capital formation and socio-economic transformation (GRZ, 2006, 2022). An account of Zambia's development trajectory would be incomplete without reference to higher education. This chapter builds on the 2019 State of Higher Education Report, which examined the evolution of the sub-sector up to 2018 (Higher Education Authority, 2019). It reviews historical developments, legal reforms, quantitative expansion, and system achievements, while proposing strategic policy directions to shape the next phase of higher education development in Zambia.

3.2 Historical Overview

The University of Zambia Act No.66 of 1965 established the University of Zambia (UNZA) as the first public university, signalling a clear post-independence commitment to indigenous human capital development (University of Zambia Act, 1965). In the early years, programme offerings were predominantly professional fields such as education, medicine, engineering, and the humanities. With only one university, access remained very limited due to entry and capacity constraints. In 1987, a second public institution, the Copperbelt University (CBU), was established to support technical and commercial disciplines needed for national industrialisation. However, this was still not sufficient to meet the growing need for higher education in Zambia.

The liberalisation of the higher education sector prompted the enactment of the University Act No.26 of 1992, which broadened higher education governance to include both public and private universities (University Act, 1992). This reform paved the way for the emergence of private universities such as Cavendish University, the Zambia Open University, and Rusangu University, among others. The growth of private higher education institutions expanded access and programme diversity, but also brought disparities in quality and institutional strength, revealing gaps in institutional quality and governance maturity. In response to these quality concerns, the University Act No.11 of 1999 strengthened oversight mechanisms, including affiliation requirements for newly established private universities (University Act, 1999).

3.3 Massification and Diversification

The period from 2010 to 2024 has seen notable expansion and diversification in Zambia's higher education landscape. It represents a phase of massification, characterised by rapid growth in the number and type of higher education institutions. As of 2024, HEA recorded a total of 201 higher education institutions under its oversight (HEA, 2024). These comprise 61 universities, 15 university colleges, 7 institutions for specialised training in specific professional fields, and 118 colleges. This expansion has broadened opportunities for access nationwide.

It is important to note, however, that despite this rapid expansion, sector growth initially occurred without a comprehensive national external quality assurance system. To address this gap, the Higher Education Act No. 4 of 2013 established the Higher Education Authority, which became operational in 2015 (Higher Education Act, 2013). HEA's mandate includes, but is not limited to:

a) Regulate and monitor standards in Higher Education Institutions (HEIs) to ensure the delivery of quality higher education in Zambia.

b) Advise the Minister of Education on matters related to higher education, including funding, policy development, and institutional governance.

c) Coordinate the development of a structured and responsive higher education system that promotes corporate governance, equity, and academic excellence.

d) Promote and audit quality assurance mechanisms across HEIs, including accreditation of learning programmes.

e) Facilitate the transformation of higher education institutions and programmes to meet national human capital and development needs.

f) Enhance access, equity, and international cooperation through student assistance, staff development, and academic exchange initiatives.

3.4 Achievements of the Higher Education Sub-Sector

Over the period under review, there have been a number of notable achievements in the higher education sector. These include the establishment of a regulatory framework, quantitative expansion and increased access to higher education, educational diversification and progress towards gender equity (HEA, 2019, 2024). These achievements are highlighted below.

3.4.1 Regulatory Architecture and Frameworks

The establishment of the Higher Education Authority and the Zambia Qualifications Authority (ZAQA)has introduced national mechanisms for registration and recognition of HEIs, accreditation of learning programmes, and a national qualifications framework (ZAQA, 2018; HEA, 2019). These developments represent fundamental progress towards safeguarding and improving the quality of education in Zambia.

3.4.2 Expansion and Access

Followingthe liberalisation of the higher education sub-sector in the early 1990s, Zambia transitioned from a monopolistic public system to a more pluralistic sub-sector with numerous registered public and private HEIs, as indicated in Chapter Two of the State of Higher Education in Zambia, 2019(HEA, 2019). This liberalisation has materially widened access to tertiary education for the Zambian population. Further, the country established the Higher Education Loans and Scholarship Board (HELSB) to provide financial support for deserving students enrolled in public higher education institutions, improving access, particularly for vulnerable learners (HELSB, 2023). In addition, the HELSB support is complemented by bursaries from the Constituency Development Fund (CDF), especially for colleges and skills training (GRZ, 2022).

3.4.3 Institutional Diversification

The amendment of the Higher Education Act, by Amendment Act No.23 of 2021, introduced new types of HEIs such as colleges, university colleges, and institutions for the specialised training of professionals in a specified field (Higher Education [Amendment] Act, 2021). The introduction of new types of HEIs has encouraged the growth of niche institutions in disciplines such as ICT, health sciences, fisheries, veterinary medicine, and applied technology, broadening programme diversity for Zambian students (HEA, 2024).

3.4.4 Curricular Responsiveness

There is increasing alignment of higher education with national goals such as Vision 2030 and the Eighth National Development Plan, which emphasise skills development,

economic transformation, and sustainable development (GRZ, 2006, 2022). This alignment is reflected in the 1,703 learning programmes submitted to HEA for evaluation, with over 80 per cent meeting accreditation requirements (HEA, 2024).

3.5 Persistent and Emerging Challenges

Despite notable achievements, several challenges persist. These include:

3.5.1 Quality versus Quantity

The rapid expansion of the higher education sub-sector has often outpaced the available resources and quality assurance mechanisms. Variations in academic staffing, research capacity, and learning resources continue to pose significant challenges. As highlighted in the historical overview, quality assurance in higher education is a relatively recent development in Zambia and the broader region. Nonetheless, the establishment of the Higher Education Authority in 2013 was timely, as it has strengthened public confidence in the qualifications awarded by various HEIs (HEA, 2019; 2024). Despite this progress, more effort is required to ensure that HEIs develop robust internal systems that promote self-regulation and foster a sustainable culture of quality assurance rather than one driven solely by compliance.

3.5.2 Academic Staffing

As clearly shown in Chapter 2, the supply of highly qualified academics remains inadequate, affecting lecture-student ratios and educational delivery. This shortage has serious implications for teaching quality, research, and innovation (HEA, 2024).

3.5.3 Gender Imbalance

As reported in Chapter Two, gender disparities remain evident, particularly at senior academic ranks, although female representation has improved between 2019 and 2024 (HEA, 2024). In 2019, there were a total of 4,198 academic staff in both public and private HEIs, against 6,089 academic staff in 2024, representing an increase of 14.5 per cent. Out of the 4,198 staff, 3,185 (75%) were males, while 1,013 (24.1%) were females. By 2024, female academic staff rose to 31.37 per cent and males were 68.63 per cent, showing progress toward gender equity (HEA, 2024).

3.5.4 Funding Constraints

Public universities face recurrent budgetary pressures that limit investments in research, infrastructure, laboratories, and postgraduate training (GRZ, 2022). Research remains underfunded and poorly connected to industry, limiting the translation of knowledge into products, services, or policy influence (HEA, 2019).

3.5.5 Digital and Infrastructural Divides

Education, like other sectors of the economy, has entered the digital era. Limited access to devices, connectivity, and e-learning platforms continues to affect students from rural and low-income backgrounds (HEA, 2024). The COVID-19 pandemic exposed these inequities and highlighted the urgency for digital infrastructure development (GRZ, 2022).

3.6 Conclusion and Policy Recommendations

This section provides a conclusion and policy recommendations.

3.6.1 Conclusion

At sixty, Zambia's higher education system is no longer a preserve of the few and has grown significantly in scale, diversity, and ambition. The real test for the coming decade is whether expansion is matched by transformations in quality, relevance, research capacity, and equity. By adopting strategic financing, stronger quality assurance practices, and tighter industry linkages, Zambia can ensure that higher education remains a central engine for inclusive and sustainable national development.

3.6.2 Policy and Institutional Recommendations

1. Introduce predictable multi-year funding for research and infrastructure, incentivise public-private partnerships, and pilot outcome-based funding for targeted programmes.

2. Establish sectoral advisory councils, co-funded research chairs, and incubation hubs to link students and faculty with private sector problems.

3. Scale doctoral and master's programmes in strategic areas with scholarships aligned to national research and development priorities.

4. Invest in national digital learning infrastructure, subsidise student internet access, and build staff capacity for blended teaching.

5. Ensure HEA's standards are reinforced through institutional capacity development grants for effective implementation.

6. Target scholarships and support services for historically underserved regions and groups to promote equitable access.

References

Government of the Republic of Zambia. (2006). Vision 2030: A Prosperous Middle-income Nation by 2030. Lusaka: Ministry of National Development Planning.

Government of the Republic of Zambia. (2022). Eighth National Development Plan (2022–2026). Lusaka: Ministry of Finance and National Planning.

Higher Education (Amendment) Act, No. 23 of 2021. (2021). The Laws of Zambia. Lusaka: Government Printer.

Higher Education Authority (HEA). (2019). The State of Higher Education in Zambia: 2019 Report. Lusaka: Higher Education Authority. https://www.hea.org.zm.

Higher Education Authority (HEA). (2024). Annual Higher Education Statistical Bulletin: 2024. Lusaka: Higher Education Authority.

Higher Education Authority Act, No.4 of 2013. (2013). The Laws of Zambia. Lusaka: Government Printer.

Higher Education Loans and Scholarships Board (HELSB). (2023). Annual Report 2023. Lusaka: HELSB. https://www.helsb.gov.zm.

University Act, No.11 of 1999. (1999). The Laws of Zambia. Lusaka: Government Printer.

University Act, No.26 of 1992. (1992). The Laws of Zambia. Lusaka: Government Printer.
University of Zambia Act, No.66 of 1965. (1965). The Laws of Zambia. Lusaka: Government Printer.

Zambia Qualifications Authority (ZAQA). (2018). Zambia Qualifications Framework (ZQF)Policy and Guidelines. Lusaka: ZAQA.

CHAPTER 4: **EQUITY, ACCESS AND INCLUSIVENESS IN HIGHER EDUCATION IN ZAMBIA:** PROGRESS AND GAPS

4.1 Introduction

This chapter focuses on gender and digital equity by examining inclusive Science, Technology, Engineering and Mathematics (STEM) initiatives that promote participation of marginalised girls and young women.

4.2 Bridging the Gender Digital Equity Gap in Zambian Higher Education: A Systematic Review of Participatory STEM Interventions Targeting Marginalised Girls and Young Women

Regina Lialabi and Francis Simui
Institute of Distance Education, University of Zambia

Abstract

This systematic review explores how participatory digital Science, Technology, Engineering, and Mathematics (STEM) education interventions can help bridge the gender digital equity gap in Zambian higher education, particularly for marginalised girls and young women in rural contexts. This gap remains a critical barrier to inclusive participation in higher education and to the broader goals of national development. Following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines, the review synthesised evidence from 22 studies identified across databases such as Education Resources Information Centre (ERIC), Journal Storage (JSTOR), and African Journals Online (AJOL). Findings reveal a multi-dimensional crisis in which girls and young women face entrenched socio-cultural norms, institutional discrimination, and profound infrastructural limitations, including minimal access to digital devices. While existing interventions address access, they rarely evaluate deeper outcomes, such as shifting gender norms or fostering sustained agency in STEM pathways. The review concludes that current efforts are inadequate for systemic change. A transition from gender-sensitive to gender-transformative frameworks is urgently needed, with participatory methodologies, such as Participatory Action Research (PAR), providing a pathway for co-created, contextually grounded solutions. Such a paradigm shift is essential for strengthening the STEM pipeline, expanding opportunities in higher education, and securing Zambia's socio-economic future, requiring targeted prioritisation and investment by policymakers, educators, and development partners.

Keywords: Gender-Transformative Education, Digital Divide, STEM Education, Zambia, Higher Education, Systematic Review, Marginalised Girls.

4.2.1 Introduction: The Dual Frontier of Gender and Digital Equity in Zambian STEM

The state of higher education in Zambia cannot be fully understood without examining the pipelines that feed into it. Nowhere is this more evident than in the Science, Technology, Engineering, and Mathematics (STEM) fields, which are critical drivers of national development and economic growth (World Bank, 2019). However, Zambia's STEM pipeline is characterised by a persistent and severe gender chasm, which begins in secondary education and widens dramatically at the tertiary level (Higher Education Authority, 2022). This disparity is not merely a matter of enrolment numbers; it is a symptom of deep-rooted systemic inequities that are compounded by the rapidly evolving digital landscape.

This chapter argues that addressing gender inequality in Zambia's higher education,

specifically in STEM, requires a dual-focused approach.It must confront both the socio-cultural barriers that limit girls' aspirations and the digital inequity that increasingly defines educational and economic opportunity. The digital revolution, while promising inclusive education, risks exacerbating existing inequalities if gender dynamics are not consciously addressed (UNESCO, 2017). In rural Zambia, where traditional norms are strongest and digital infrastructure is weakest, girls and young women sit at the precarious intersection of these two challenges.

This systematic review synthesises current literature to explore a critical question: can participatory digital STEM education interventions serve as a catalyst for gender-transformative change, enabling marginalised girls in Zambia to overcome structural barriers and envision themselves as future scientists, technologists, and engineers? By adopting the PRISMA framework, this chapter provides a rigorous, transparent, and comprehensive analysis of the evidence, gaps, and future directions for research and policy aimed at creating a more equitable and robust higher education sector in Zambia.

4.2.2 Methodology: A PRISMA-Guided Systematic Review

To ensure a comprehensive and unbiased synthesis of the literature on gender, digital equity, and STEM in Zambia, this review adhered to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021).

a) Information Sources and Search Strategy

A systematic search was conducted across four electronic databases: ERIC, JSTOR, Scopus, and Web of Science. To capture region-specific literature, the African Journals Online (AJOL) database and the websites of key Zambian institutions (e.g., Higher Education Authority, ZICTA, Ministry of Education) were also searched. Grey literature, including reports from UNICEF, UNDP, and the World Bank, was incorporated to provide context on current interventions and policy.

The search strategy used a combination of keywords and Boolean operators:('STEM education' OR 'science education' OR 'technology education') AND ('gender' OR 'girls' OR 'women') AND ('digital divide' OR 'digital equity' OR 'ICT access') AND ('Zambia' OR 'Sub-Saharan Africa') AND ('rural' OR 'marginalised') AND ('gender transformative' OR 'participatory').

b) Eligibility Criteria

Studies were included if they: (1) were published in English between 2014 and 2024; (2) focused on Zambia or provided a comparative analysis of including Zambia; (3) empirically or theoretically addressed the intersection of gender, digital technology, and STEM education; and (4) were peer-reviewed journal articles, conference proceedings, dissertations, or official policy/government reports. Studies were excluded if they were purely technical or did not explicitly discuss gender implications.

c) Study Selection and Data Extraction

The study selection process followed the PRISMA flow diagram (Figure 1). After duplicates were removed, titles and abstracts were screened against the eligibility criteria. The full texts of potentially relevant studies were then assessed. Data from included studies were extracted into a standardised matrix, capturing: author(s), year, study design, sample characteristics, key findings related to barriers, interventions, and outcomes, and limitations.



Figure 3.0: *PRISMA Flow Diagram Illustrating the Process of Study Selection from Identification to Inclusion*

4.2.3 Results: Synthesising the Evidence on Barriers and Interventions

a) The Scale of the Challenge: A Statistical Portrait

The included literature consistently quantifies the profound nature of the gender gap. The secondary school completion gap (40.4% for girls vs. 43.7% for boys) (Education Statistics Bulletin, 2024) establishes an early disadvantage. This gap explodes at the tertiary level, where women constitute only 20 per cent of the STEM student body, a figure that obscures even lower participation in specific fields like engineering (Higher Education Authority, 2022; Gender Policy, 2023).

The digital divide presents a parallel inequity. The Zambia Inclusive Digital Economic Status Report (2022) notes that 47 per cent of Zambians lack connectivity, with 34 per cent gender gap disadvantaging women. This is acutely felt in rural areas, where device ownership and basic computer literacy among women are critically low (ZICTA Gender Status Report, 2021). This digital marginalisation directly impacts the ability to engage with modern STEM educational resources.

b) Thematic Analysis of Barriers

The synthesis revealed three overarching thematic barriers:

i. Socio-Cultural and Normative Barriers: Deeply entrenched gender norms prioritise domestic roles over academic careers for girls. Early marriage and pregnancy frequently interrupt education. A lack of female role models in STEM perpetuates the notion that these fields are masculine domains.

ii. Institutional and Systemic Barriers: Discrimination and harassment within educational institutions, as reported by Afrobarometer (2025), create hostile learning environments. A scarcity of qualified STEM teachers, especially females, and a lack of adequate laboratories and digital resources in rural schools further hinder quality education.

iii. Infrastructural and Access Barriers: The digital divide is not merely about connectivity; it encompasses the affordability of devices, reliable electricity, and the technical support needed to maintain digital learning hubs. This infrastructure deficit is the foundational layer that exacerbates all other barriers.

c) Existing Interventions and a Critical Gap

The review identified several key digital and STEM initiatives in Zambia, such as the Digital Learning Passport and the ZStudy Platform's STEM kits. While these programmes are laudable for expanding access, the synthesised literature reveals a significant gap: a near-total absence of rigorous, independent evaluation of their gender-transformative outcomes. Most documented programmes focus on input (providing devices, connectivity) and basic output (improved test scores, digital literacy). There is scant evidence on whether they successfully challenge gender stereotypes, build long-term STEM agency, or reshape community attitudes—the core tenets of Gender-Transformative Education (GTE) as defined by Parkes and Heslop (2013).

4.2.4 **Discussion:** Towards a Gender-Transformative Framework for Digital STEM in Zambia

4.2.4.1 Theoretical Foundations for Gender-Transformative Approaches in Digital STEM

The findings of this systematic review reveal that current digital STEM initiatives in Zambia remain largely gender-sensitive or at best, gender-responsive, failing to address the underlying structural barriers that perpetuate gender inequality. According to the World Health Organisation's Gender Responsive Assessment Scale, gender-sensitive approaches merely acknowledge gender differences without implementing remedial actions, while gender-specific interventions target women's needs without challenging root causes (World Health Organisation, 2021). In contrast, gender-transformative strategies actively 'address the causes of gender-based health inequities by including ways to transform harmful gender norms, roles, and relations' (World Health Organisation, 2021, p.15). This distinction is critical for understanding why current digital STEM interventions in Zambia have achieved limited success in bridging the gender digital equity gap.

The theoretical framework for gender-transformative education (GTE) in digital STEM contexts draws from multiple interdisciplinary perspectives. Sociocultural

theory (Vygotsky, 1978) emphasises how cultural tools and social interactions mediate learning, helping explain how digital technologies can either reinforce or challenge existing gender norms in Zambian rural contexts (Vygotsky, 1978). Expectancy-Value Theory (Eccles, 2005) further elucidates how girls' STEM aspirations are shaped by their expectations of success and the subjective value they attach to STEM pursuits, both heavily influenced by socio-cultural factors such as parental education ($\beta = 0.41$, $p < 0.001$) and household responsibilities ($\beta = -0.28$, $p = 0.002$) (Eccles, 2005). These theoretical perspectives help explain why merely providing access to digital technology without addressing deeper structural constraints yields limited results.

Table 8.0: Levels of Gender Responsiveness in Educational Interventions

Level	Type	Characteristics	Example in Zambian Context
1	Gender-unequal	Reinforces gender inequalities	STEM classrooms where boys prioritise computer access
2	Gender-blind	Ignores gender differences	'Neutral' digital literacy programmes that ignore gendered usage patterns
3	Gender-sensitive	Acknowledges gender differences	Recognising that girls have less access to devices, but no remedial action
4	Gender-specific	Targets specific gender needs	Coding workshops exclusively for girls
5	Gender-transformative	Challenges structural inequalities	PAR approaches that engage girls, families, and communities in reshaping STEM narratives

4.2.5 The Promise of Participatory Methodologies in Digital STEM Education

Participatory Action Research (PAR) has emerged as a particularly potent methodology for advancing gender-transformative digital STEM education in Zambia. PAR aligns seamlessly with gender-transformative principles by positioning marginalised girls and young women not as passive beneficiaries but as active co-researchers and agents of change (Parkes and Heslop, 2013). This approach directly addresses the critical evidence gap identified in this systematic review—the lack of rigorous evaluation of how digital STEM interventions transform gender norms and foster sustained STEM agency (UNESCO, 2017). The PAR process itself builds critical consciousness by enabling participants to identify and analyse the structures that perpetuate their marginalisation, subsequently developing strategies for transformation (Freire, 1970).

Photovoice and digital storytelling methodologies serve as powerful tools within PAR

frameworks to amplify marginalised voices and challenge dominant narratives. These participatory digital methodologies enable Zambian girls to document and reflect on their experiences with STEM education, creating compelling counter-narratives that can influence community attitudes and policy decisions (Wang and Burris, 1997). For instance, projects like Oracle4Girls have demonstrated the effectiveness of creating safe spaces where girls can experiment with technology without male dominance, an approach that increased participation of 3,200 girls across 14 Spanish cities (Oracle, 2022). Similarly, initiatives like DiGIRLab in the metaverse and GIRLBOT's bracelet-making robotics show how gamified and culturally relevant approaches can enhance female engagement in STEM fields (European Schoolnet, 2023).

The transformative potential of these participatory approaches is further enhanced when they incorporate female role models and mentors. Research consistently shows that the absence of visible female STEM professionals perpetuates the notion that these fields are masculine domains (UNESCO, 2017). Programmes that connect Zambian girls with successful women in STEM, such as Terysa Ridgeway, a computer scientist and former rocket scientist now at Google, can powerfully counter stereotypes and expand aspirations (Ridgeway, 2022). Ridgeway's assertion that 'Teaching children to code is like giving them a superpower; it unlocks endless possibilities and creativity' encapsulates the empowering potential of digital literacy when combined with representative mentorship (Ridgeway, 2022, para. 3).

4.2.6 Implications for Higher Education and Systemic Transformation

The underrepresentation of women in Zambian university STEM programmes, standing at only 20 per cent of total STEM enrolment, is a direct consequence of the multi-faceted barriers identified in this review (Higher Education Authority, 2022). A gender-transformative approach to digital STEM education at the secondary level represents an essential strategy for strengthening the higher education pipeline. By fostering robust STEM identities and self-efficacy among rural girls before they reach university, these interventions can directly increase the quantity and diversity of applicants to STEM faculties (Bandura, 2001). This transformation is not merely about equity but about national economic imperative: with an estimated 230 million jobs in sub-Saharan Africa requiring digital skills by 2030, Zambia cannot afford to exclude half its population from these opportunities (World Bank, 2019).

Higher education institutions (HEIs) in Zambia must embrace their critical role in addressing gender disparities in STEM. Currently, only 18-31 per cent of the researchers in sub-Saharan Africa are women, compared to 49 per cent in Southeast Europe and the Caribbean (UNESCO, 2021). HEIs can implement several evidence-based strategies to transform this reality: (1) developing gender-responsive institutional policies that promote equality in STEM education; (2) addressing biased gender norms embedded in curricula, textbooks, and teaching practices; (3) increasing the visibility of female role models in STEM faculties; and (4) establishing bridge programmes and mentorship initiatives that support women's transition from secondary to tertiary STEM education (European Institute for Gender Equality, 2019). These institutional efforts must be complemented by policies that address structural barriers such as the gender pay gap (20% less for women in STEM globally) and workplace discrimination (experienced by 40 per cent of female engineers) (International Labour Organisation, 2022).

The economic imperative for gender-transformative digital STEM education cannot be overstated. The exclusion of women from the digital economy has cost low- and middle-income countries an estimated US$1 trillion over the last decade, a figure projected to rise to US$1.5 trillion by 2025 without intervention (World Bank, 2022). Conversely, increasing women's participation in STEM fields drives innovation and economic growth: diverse

teams produce more innovative solutions that address the needs of broader populations (European Commission, 2021). As noted by European Schoolnet's Dr Agueda Gras-Velazquez, 'STEM is present in virtually all aspects of our lives. That is why we believe everyone should have access to STEM education' (European Schoolnet, 2023, p.12). This accessibility is crucial for Zambia's development, particularly as 75 per cent of future jobs globally will be related to STEM fields (World Economic Forum, 2020).

Table 9.0: Theoretical Frameworks Informing Gender-Transformative Digital STEM Education

Theoretical Framework	Key Concepts	Application to Digital STEM in Zambia
Sociocultural Theory (Vygotsky, 1978)	Learning mediated by cultural tools and social interactions	Digital technologies as tools for challenging or reinforcing gender norms through social interaction
Expectancy-Value Theory (Eccles, 2005)	Motivation shaped by expectation of success and task value	Addressing how gender norms influence girls' STEM self-efficacy and perceived value of STEM careers
Gender-Transformative Education	Challenges root causes of gender inequality	PAR methodologies that engage girls in critiquing and transforming discriminatory structures
Social Cognitive Theory (Bandura, 2001)	Learning through observation and self-efficacy	Female role models and mastery experiences in digital STEM building girls' confidence

4.2.7 Conclusion and Policy Recommendations

At sixty years of independence, Zambia's higher education landscape stands at a defining crossroads, a point of reflection, renewal, and re-imagination. From a nation that began its journey in 1964 with no university and only a handful of graduates, Zambia has evolved into a country with a growing constellation of public and private universities, open and distance learning institutions, and technical education colleges that continue to expand access to tertiary education. Yet, this progress is marked by deep structural and systemic challenges. Persistent inequalities in gender participation, uneven access to digital infrastructure, and limited research innovation capacity continue to hinder the full realisation of higher education's transformative potential. The gendered digital divide, particularly in Science, Technology, Engineering, and Mathematics (STEM), underscores the unfinished business of inclusivity in Zambia's educational agenda. As Zambia reflects on six decades of nationhood, the state of higher education at 60 calls for a paradigm shift — from expansion to transformation, from enrolment to empowerment, and from access to equity and excellence. This transformation demands the integration of gender-transformative policies, investment in digital infrastructure, and the nurturing of critical and

innovative mind-sets among educators and learners alike. The next chapter of Zambia's higher education must, therefore, be defined by collaborative governance, where the government, universities, private sector, and civil society co-create responsive policies that align with the Sustainable Development Goals (SDGs) — particularly SDG 4 on quality education and SDG 5 on gender equality. Only through such a collective and transformative vision can Zambia's higher education system fulfil its promise as a driver of human capital development, social justice, and national prosperity in the decades ahead.

Based on this analysis, the following policy recommendations are proposed, clearly aligned to relevant actors and duty bearers to ensure coordinated and sustainable action:

i. **The Ministry of Education and Ministry of Technology and Science should:** Integrate gender-transformative frameworks into national digital and STEM education policies. This should move beyond access-oriented initiatives to explicitly challenging discriminatory norms and institutional structures that perpetuate inequality.

ii. **Curriculum Development Centre (CDC) and Teacher Training Colleges must:** Adopt participatory approaches in the design and review of digital STEM curricula, ensuring that girls and young women are active co-creators in identifying barriers and proposing solutions that respond to their lived realities.

iii. **Teaching Service Commission and Teacher Training Institutions should:** Invest in comprehensive educator training that addresses implicit gender biases, promotes inclusive teaching methods, and transforms pedagogical practices that reinforce gender stereotypes within STEM learning environments.

iv. **National Science and Technology Council (NSTC) and Zambia Statistics Agency (ZamStats):** should Develop and institutionalise robust monitoring and evaluation frameworks that measure not only quantitative participation in STEM but also qualitative shifts in gender norms, self-efficacy, and critical consciousness among learners and educators.

v. **Government (Cabinet Office – Gender Division), Private Sector (e.g., Oracle, Google, MTN), and Civil Society Organisations (e.g., FAWEZA, WiSci):** must strengthen multi-stakeholder partnerships to coordinate and scale up successful interventions, mobilise resources, and promote mentorship, innovation labs, and digital literacy programmes that empower girls and young women to thrive in STEM.

The transformative potential of digital STEM education lies not merely in its technical content but in its capacity to empower marginalised girls and young women to critique, navigate, and ultimately transform the structures that limit their possibilities (Freire, 1970). As Zambia pursues its Vision 2030 and Sustainable Development Goals commitments, embracing gender-transformative approaches to digital STEM education will be essential for building a more inclusive, innovative, and equitable future. This systematic review contributes to that future by illuminating pathways through which digital STEM education might truly bridge rather than reproduce existing inequities.

REFERENCES

Afrobarometer. (2025). Dispatch No. 825: Experiences of Discrimination in Zambia.

Bandura, A. (2001). Social Cognitive Theory: An Agentic Perspective. Annual Review of Psychology, 52, 1-26.

Braun, V., and Clarke, V. (2006). Using Thematic Analysis in Psychology. Qualitative Research in Psychology, 3(2), 77-101.

Eccles, J.S. (2005). Studying Gender and Ethnic Differences in Participation in Math, Physical Science, and Information Technology. New Directions for Child and Adolescent Development, 2005(110), 7-14.

Education Statistics Bulletin. (2024). Ministry of Education, Zambia.

European Commission. (2021). She Figures 2021: Gender in Research and Innovation. Publications Office of the European Union.

European Institute for Gender Equality. (2019). Gender Mainstreaming in Higher Education. Publications Office of the European Union.

European Schoolnet. (2023). STEM Education for Girls: Breaking Barriers and Creating Opportunities. Brussels: European Schoolnet.

Freire, P. (1970). Pedagogy of the Oppressed. Continuum.

Gender Policy. (2023). Government of the Republic of Zambia.

Higher Education Authority. (2022). Annual Report. Lusaka, Zambia.

International Labour Organization. (2022). The Gender Gap in STEM: Global Evidence and Policies for Change. ILO Publications.

Oracle. (2022). Oracle4Girls: Inspiring the Next Generation of Female STEM Leaders. Oracle Corporate Citizenship Report.

Page, M.J., et al. (2021). The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. BMJ, 372, n71.

Parkes, J., and Heslop, J. (2013). Stop Violence Against Girls in School: A Cross-country Analysis of Change in Ghana, Kenya and Mozambique. ActionAid.

Ridgeway, T. (2022). Why We Need More Women in Tech: A Personal Perspective. Google Developer Blog. Retrieved from https://developers.googleblog.com.

UNESCO. (2017). Cracking the Code: Girls' and Women's Education in STEM. Paris: UNESCO.

UNESCO. (2021). UNESCO Science Report: The Race Against Time for Smarter Development. UNESCO Publishing.

UN Women. (2014). Gender Equality and Sustainable Development. UN Women Policy Brief Series.

Vygotsky, L.S. (1978). Mind in Society: The Development of Higher Psychological Processes. Harvard University Press.

Wang, C., and Burris, M. A. (1997). Photovoice: Concept, Methodology, and Use for Participatory Needs Assessment. Health Education and Behavior, 24(3), 369-387.

World Bank. (2019). The Changing Nature of Work. World Development Report.

World Bank. (2022). Women, Business and the Law 2022. World Bank Group.

World Economic Forum. (2020). The Future of Jobs Report 2020. World Economic Forum.

World Health Organisation. (2021). Gender Responsiveness Assessment Scale: Manual for Health Planners and Managers. WHO Press.

Zambia Inclusive Digital Economic Status Report. (2022).

ZICTA Gender Status Report. (2021). Zambia Information and Communications Technology Authority.

CHAPTER 5 : QUALITY OF TEACHING AND LEARNING IN HIGHER EDUCATION IN THE FOURTH INDUSTRIAL REVOLUTION

5.1 Introduction

This chapter is divided into three articles that evaluate the quality dimensions of higher education in the context of the Fourth Industrial Revolution (4IR). It analyses teaching and learning innovations, digital transformation, curriculum relevance, and the preparedness of institutions and faculty to integrate 4IR-driven pedagogies to produce learners endowed with competencies that would help meet their needs and those of society.

5.2 Assessing Quality Assurance Practices in Higher Education: A Case of Zambia University College of Technology

Natalia Zulu, Simon Banda, and Chanda Mushikwa
Zambia University College of Technology

Abstract

This study critically assessed quality assurance (QA) practices at the Zambia University College of Technology (ZUT), recognising the national imperative to maintain consistent educational quality within Zambia's expanding higher education sector. Grounded in a dual theoretical framework integrating Total Quality Management (TQM) principles and Stakeholder Theory, the research systematically evaluated ZUT's existing policies and assessed stakeholder perceptions and experiences. Employing a pragmatic, embedded mixed-methods design, the study utilised quantitative data from a survey administered to 286 students (N=1,106) and qualitative data from semi-structured interviews with a purposive sample of 10 staff members. Quantitative data were analysed using ANOVA and t-tests, while qualitative data underwent thematic analysis. The findings revealed statistically significant inconsistencies ($p<0.001$ across all key variables) in ZUT's QA implementation. Quantitative results demonstrated significant discrepancies in perceptions regarding policy alignment with national standards, data-driven decision-making, resource allocation, and departmental participation. Qualitative data corroborated these findings, highlighting a foundational lack of clarity and comprehensiveness in QA policies, the absence of a specific QA budget line, and limited systematic data utilisation. Furthermore, significant variance was found in student experiences concerning career preparedness, feedback consideration, and institutional trust. The study concludes that ZUT's QA framework is not uniformly understood, effectively resourced, or consistently implemented. Recommendations include the imperative for a comprehensive QA framework reform, dedicated resource allocation, and the institutionalisation of a data-driven culture and equitable stakeholder participation to achieve alignment with national development goals, including Vision 2030.

Keywords: Quality assurance, Higher education, Total Quality Management, Stakeholder Theory, Zambia, ZUT.

5.2.1 Background and Context of the Study

Quality assurance is fundamental to safeguarding the integrity and relevance of higher education institutions (HEIs). Defined as a systematic approach, QA ensures that educational, research, and community service activities meet specific standards and are continuously improved (Zuhairi et al., 2020). Its core function is to guarantee that academic programmes are of high calibre, relevant, and responsive to evolving student learning needs. Effective QA necessitates the active involvement of all stakeholders (Freeman, 1984), requiring HEIs to balance the interests of internal actors (staff, students) with external entities (employers, government bodies) to ensure transparency and

alignment with societal needs (Fisher, 2023; Garcia and Jamias, 2023).

The efficacy of QA is intrinsically linked to core institutional elements, demanding that academic staff maintain high qualifications and research output (HEA, 2022) and that the curriculum is deliberately designed to cultivate essential professionalism and employability skills (Miller and Seller, 1985). Historically, critiques have noted a pervasive relevance gap between HEI outputs and societal needs, frequently citing graduate deficiencies (Chabatama, 2012; Mulenga and Luangala, 2015). Recent findings continue to substantiate this, with employers reporting that new graduates often lack the necessary durable and technical skills, requiring extensive on-boarding (Utah System of Higher Education, 2024). This underscores the urgency for curriculum redesign to strengthen theory-practice connections.

In developing contexts, such as Africa, HEIs face acute challenges, including surging enrolment, underfunding, and the necessity of integrating modern technology (Masaiti and Simuyaba, 2018; Wiles and Bondi, 2007). These pressures necessitate robust QA mechanisms to ensure local and international standards are met (Mulenga, 2020). Furthermore, QA implementation is dynamic, requiring curricula to be adaptable to global issues like technology and AI (Annala et al., 2016) and to align with national guidelines, such as Zambia's ZSG-QA (HEA, 2021), and to integrate emerging issues like sustainability (Stabback, 2016).

5.2.2 Literature Review and Zambian Context

Within the academic context, a significant challenge in rapidly expanding African higher education systems is balancing increased access with maintaining rigorous academic standards (Altbach and Salmi, 2011; Cloete and Maassen, 2015). Uncontrolled expansion risks diluting educational quality, thereby threatening graduate relevance and employability (Sikazwe and Nkhoma, 2023) and undermining national human capital development (Bloom et al., 2014).

In Zambia, national policy documents, including the Eighth National Development Plan (Ministry of National Development Planning, 2022) and Vision 2030 (Republic of Zambia, 2006), prioritise human capital development through quality education to achieve economic transformation. This is further reinforced by the country's commitment to the United Nations Sustainable Development Goal 4 (United Nations Zambia, n.d.).

The Higher Education Authority (HEA) and the Zambia Qualifications Authority (ZAQA) are the critical regulatory bodies, mandated to prevent academic quality compromise and address concerns about low-quality qualifications (Higher Education Act, 2013; ZAQA, 2022). While research (Sikazwe and Nkhoma, 2023; Kajala and Daka, 2023) highlights macro-level challenges in translating national regulations into effective institutional practice, particularly given the expansion of private HEIs, a significant gap remains in detailed, institutional-level studies. This current study aims at addressing this gap by assessing the practical implementation and effectiveness of QA practices at the Zambia University College of Technology (ZUT). The study provides insights for strengthening QA frameworks nationally.

5.2.3 Theoretical Underpinning

This study critically assessed ZUT's quality assurance (QA) practices using a dual theoretical framework. It integrated Total Quality Management (TQM) (Deming, 1986), as the primary lens to systematically evaluate institutional policies and operational processes for alignment with quality standards (Wolniak and Grebski, 2024). Complementarily, Stakeholder Theory (Freeman, 1984) provided a human-centred perspective, illuminating the perceptions and lived experiences of key groups, including students and staff (Fares et al., 2022). This combination offered a holistic, nuanced understanding of both the formal

QA framework and its practical realities.

5.2.4 Research Problem and Research Objectives

Zambia's expanding higher education sector faces a critical challenge in maintaining quality and stakeholder confidence (World Bank, 2010; Cloete and Maassen, 2015). Without effective QA, this expansion risks undermining Zambia's core national aspiration for a productive, economically transformative workforce, as outlined in the Eighth National Development Plan (8NDP) 2022 to 2026 (Ministry of National Development Planning, 2022).

Specifically, there is a lack of comprehensive understanding regarding the effectiveness of ZUT's current QA policies and procedures. This knowledge gap pertains particularly to their alignment with TQM principles and their capacity to meet the diverse needs and perceptions of stakeholders. Addressing this is crucial for ZUT's ability to ensure accountability, meet mandates from regulatory bodies, and contribute effectively to national goals, including SDG 4 for quality education (United Nations, 2015) and developing a globally competitive workforce (Ministry of Education, 2023). Therefore, a critical assessment of ZUT's quality assurance practices is essential, not merely as an institutional concern, but as a microcosm of a broader national imperative, thereby propelling Zambia towards its Vision 2030 aspirations (Government of the Republic of Zambia, 2007).

This chapter, therefore, sought to address the following:

1. To evaluate the existing quality assurance policies and procedures at ZUT; and

2. To assess stakeholder perceptions and experiences concerning quality assurance practices at ZUT.

Hypotheses:

This study also tested the following hypotheses regarding the existing quality assurance policies and procedures at ZUT.

H0: There are no statistically significant gaps or inconsistencies in the existing quality assurance policies and procedures at ZUT when evaluated against established higher education quality standards.

H1: There are statistically significant gaps or inconsistencies in the existing quality assurance policies and procedures at ZUT when evaluated against established higher education quality standards.

5.2.5 Research Methodology

This study utilised an embedded mixed-methods approach (primarily quantitative) with a pragmatic paradigm to evaluate quality assurance at ZUT. A survey was administered to 286 students (N=1,106) and analysed using inferential statistics (ANOVA, t-tests). This was complemented by semi-structured interviews with a purposive sample of 10 staff members (e.g., HoD, lecturers) to provide explanatory depth, with qualitative data analysed via thematic analysis. Validity was ensured via expert consultation and literature review, and ethical protocols were adhered to. The subsequent section presents the findings from the study.

5.2.6 Findings

This section presents the findings from a mixed-methods assessment of Quality Assurance

Practices in higher education, with a specific focus on the Zambia University College of Technology. The methodology employed a comprehensive approach, integrating statistical analyses of quantitative data with thematic interpretation of qualitative data. The statistical analyses included independent-samples t-tests, analyses of variance (ANOVAs), and hypothesis testing. Concurrently, interview transcripts underwent rigorous thematic analysis to identify emergent themes and insights.

5.2.6.1 Evaluation of Existing Quality Assurance Policies and Procedures at ZUT

Objective 1 was to evaluate the existing quality assurance policies and procedure at the Zambia University College of Technology (ZUT). The evaluation was based on the assessment of stakeholder perceptions of ZUT's quality assurance policies and procedures. The inquiry was framed by the following hypotheses:

H0: There are no statistically significant gaps or inconsistencies in the existing quality assurance policies and procedures at ZUT when evaluated against established higher education quality standards.

H1: Statistically significant gaps or inconsistencies exist in the existing quality assurance policies and procedures at ZUT when evaluated against established higher education quality standards.

Table 10.0: Evaluation of the Existing Quality Assurance Policies and Procedures at ZUT

ANOVA						
		Sum of Squares	Df	Mean Square	F	Sig.
The QA policies at ZUCT are in line with HEA standards	Between Groups	32.548	4	8.137	9.981	*P<0.001*
	Within Groups	163.042	200	.815		
	Total	195.590	204			
Decisions regarding academic and administrative improvements at ZUCT are data driven	Between Groups	47.270	4	11.818	11.127	*P<0.001*
	Within Groups	212.417	200	1.062		
	Total	259.688	204			
All departments at ZUCT actively participate in implementing quality assurance initiatives	Between Groups	52.607	4	13.152	11.592	*P*<0.001
	Within Groups	226.905	200	1.135		
	Total	279.512	204			
There are sufficient resources (e.g. staff, budget, training) allocated to support quality assurance activities at ZUCT	Between Groups	60.873	4	15.218	9.134	*P*<0.001
	Within Groups	333.205	200	1.666		
	Total	394.078	204			

Table 5.2.1 ANOVA results consistently demonstrate statistically significant differences ($p<0.001$) in students' perceptions across all evaluated aspects of ZUT's quality assurance policies and procedures. Specifically, perceptions vary widely among groups, likely including those from the School of Business, School of Engineering, and School of Information Technology, regarding the alignment of QA policies with HEA standards, the extent to which decisions are data-driven, the level of departmental participation in QA initiatives, and the sufficiency of allocated resources for QA activities. These findings definitively lead to the rejection of the null hypothesis, indicating that significant gaps and inconsistencies are perceived to exist within ZUT's QA framework and its implementation, highlighting a heterogeneous understanding among these key academic units.

5.2.6.2 Stakeholder Perceptions and Experiences of QA Practices at ZUT

Objective 2 was to assess stakeholder perceptions and experiences concerning quality assurance practices at ZUT. The results are presented in Table 5.2.2.

Table11.0: Student Perception and Experiences Concerning Quality Assurance Practices at ZUT

ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
I believe the academic programmes at ZUCT adequately prepare me for my future career	Between Groups	93.624	4	23.406	23.402	0.000
	Within Groups	185.028	185	1.000		
	Total	278.653	189			
Feedback I provide through ZUCT's channels is genuinely considered and leads to improvements	Between Groups	89.741	4	22.435	17.281	0.000
	Within Groups	240.174	185	1.298		
	Total	329.916	189			
I trust that ZUCT is committed to continuously improving the quality of my education	Between Groups	80.953	4	20.238	23.322	0.000
	Within Groups	160.542	185	.868		
	Total	241.495	189			
The quality of facilities and resources (e.g., library, labs and internet) at ZUCT supports my academic success	Between Groups	97.381	4	24.345	17.027	0.000
	Within Groups	264.519	185	1.430		
	Total	361.900	189			
ZUCT effectively addresses issues related to student welfare and support as part of its quality efforts	Between Groups	70.460	4	17.615	13.143	.000
	Within Groups	247.940	185	1.340		
	Total	318.400	189			

Table 2's ANOVA results consistently indicate statistically significant differences ($p<0.001$) among student cohorts regarding their perceptions and experiences of quality assurance practices at ZUT. These observed disparities, likely stemming from students across the School of Business, School of Engineering, and School of Information Technology, pertain to several critical areas. Specifically, student groups exhibited significant variations in their beliefs concerning how adequately academic programmes prepare them for future careers, the extent to which their feedback is genuinely considered and leads to improvements, their trust in ZUT's commitment to continuous quality enhancement, the perceived quality of facilities and resources supporting academic success, and the effectiveness of student welfare and support services. Collectively, these findings underscore a heterogeneous student experience of quality assurance across the institution's distinct academic units.

5.2.6.3 Staff Perceptions from Qualitative Interviews

To complement and provide explanatory depth for the quantitative findings presented in Table 5.1 and Table 5.2, qualitative data were collected through interviews with ZUT staff. The results of the thematic analysis are presented in Table 5.2.3.

Table 12.0: Perceptions and Experiences on Quality Assurance

Themes	*Direct Quotes from Staff Interviews*
Theme 1: Perceived Lack of Clarity, Accessibility, and Comprehensiveness in Quality Assurance Policies	*'There is no specific and holistic quality assurance framework at ZUT to benchmark against HEA regulations.' (Staff C)* *'There is no specific quality assurance framework, which has been availed.' (Staff E)*
Theme 2: Insufficient Allocation and Specificity of Resources for Quality Assurance	*'There is no deliberate budget line towards quality assurance.' (Staff B)* *'Resources could be there, but are not specific towards quality assurance. It just doesn't stand out. ' (Staff C)* *'There is a need for a well-articulated training needs assessment aimed at implementing a performance management framework.' (Staff D)*
Theme 3: Limited Participation, Transparency, and Data-Driven Decision-Making	*'No. The decisions are not really data driven. There is a need for carrying out needs assessments at ZUT.' (Staff B)* *'There is no systematic process for data collection meant for decision-making.' (Staff D)*
Theme 4: Perceived Quality of Education and Working Environment	*'I strongly agree that as ZUT, we do offer quality education, but we still need to improve.' (Staff A)* *'Commitment to providing high-quality working environment is there at ZUT. But it is subjective and very slow.'(Staff E)*

Table 5.2.3 presents the qualitative findings derived from in-depth interviews with ZUT staff, offering direct insights into their perceptions and experiences concerning quality assurance. The table is structured to display emergent themes, each substantiated by direct, illustrative quotes from various staff participants (Staff A, B, C, D, E, F). These themes encompass the perceived lack of clarity and comprehensiveness in QA policies, the insufficient allocation and specificity of resources for QA activities, observed limitations in participation, transparency, and data-driven decision-making, and the perceived quality of education and the working environment. Collectively, these qualitative insights offer a detailed understanding of the operational and systemic challenges underlying quality

assurance practices at ZUT, as experienced by its staff. The next section is the discussion of this research.

5.2.7 Discussion

This discussion integrates quantitative and qualitative findings to evaluate the efficacy and consistency of quality assurance (QA) practices at the Zambia University College of Technology (ZUT). The analysis is framed by the principles of Total Quality Management (TQM) and Stakeholder Theory, contextualised within the challenges prevalent in developing higher education systems. The results consistently highlight systemic gaps and operational inconsistencies within ZUT's current QA framework and its implementation.

5.2.7.1 Inconsistencies in the Formal QA Framework

The analysis of Objective 1 demonstrated statistically significant differences in stakeholder perceptions regarding the alignment of ZUT's QA policies with national Higher Education Authority (HEA) standards ($F(4,200) = 9.981$, $p < 0.001$). The rejection of the null hypothesis indicates a critical misalignment between ZUT's internal framework and national regulatory benchmarks (HEA, 2022).

Qualitative data provided essential context, with staff explicitly noting the absence of a 'specific and holistic QA framework at ZUT to benchmark against HEA regulations' and confirming that existing policies 'do not specifically mention quality assurance.' This suggests that the perceived misalignment stems from a foundational deficiency in the institutional policy architecture itself.

From a TQM perspective (Deming, 1986), this disparity represents a failure to effectively translate external standards into uniform internal policies, thereby undermining the core principle of adherence to defined quality parameters. This aligns with literature documenting the difficulties faced by developing higher education systems in maintaining standards amidst rapid expansion (Altbach and Salmi, 2011; Cloete and Maassen, 2015). Stakeholder theory (Freeman, 1984) suggests that this lack of perceived policy consistency impedes the shared commitment necessary for a unified quality approach, ultimately eroding the trust vital for robust stakeholder relationships.

5.2.7.2 Challenges in Operationalising Quality Through Data and Participation

Further quantitative analysis indicated significant differences in perceptions regarding data-driven decision-making ($F(4,200) = 11.12$, $p < 0.001$) and departmental participation in QA initiatives ($F(4,200) = 11.592$, $p < 0.001$).

Qualitative findings directly corroborated these variances. Staff confirmed, 'there is no systematic process for data collection meant for decision-making' and that decisions are 'not really data driven.' This operational reality signifies a major deviation from TQM's emphasis on data-driven continuous improvement (Deming, 1986). Similarly, staff perceptions that employees 'don't even understand what QA is' and that participation is 'not in a coordinated way' clarify the quantitative findings on uneven engagement, indicating a failure to foster the 'total participation' culture integral to TQM.

The lack of transparent and data-driven decision-making compromises trust and legitimacy among stakeholders (Freeman, 1984). Disparate perceptions, particularly among student sub-groups, suggest that feedback may not be effectively utilised, leading to disempowerment. This operational inconsistency aligns with known challenges in translating national QA frameworks into effective institutional practices within the Zambian context (Sikazwe and Nkhoma, 2023).

5.2.7.3 Resource Constraints and their Impact on Quality Delivery

The ANOVA for Objective 1 revealed highly significant differences in perceptions concerning the sufficiency of resources allocated to support QA activities ($F(4,200) = 9.134$, $p<0.001$).

Qualitative data, strongly supported this finding. Staff consistently reported 'no specific budget line for Quality Assurance' and that resources 'are not specific towards Quality Assurance.' This direct evidence of internal resource constraints highlights a major operational impediment to effective QA, as adequate resource allocation is fundamental to TQM processes (Deming, 1986). Without sufficient inputs, even well-designed policies are likely to fail in implementation.

From a stakeholder theory perspective, inadequate resource allocation directly impacts the capacity of internal stakeholders (e.g., departments, staff) to fulfil their quality roles. This resource scarcity impacts stakeholders' ability to participate effectively, leading to disparate perceptions of the system's robustness, a concern frequently highlighted in literature on QA implementation in developing countries (Marginson and van der Wende, 2007).

5.2.7.4 Perceived Quality Outcomes and Student Experience

The quantitative ANOVA results for Objective 2 demonstrated statistically significant differences ($p<0.001$) across various dimensions of student experiences, indicating heterogeneous student outcomes regarding career preparedness, feedback responsiveness, institutional trust, and quality of facilities/welfare.

The significant differences in students' perception of career preparedness ($F(4,185) = 23.402$, $p<0.001$) are explained by staff's qualitative concerns regarding unclear policies and non-specific resources. If the institutional framework fails to support curriculum alignment with industry demands, it logically leads to varied student preparedness, reflecting a TQM failure to satisfy 'customer' needs (Deming, 1986; ZAQA, 2022). Similarly, student variation in perceived feedback consideration ($F(4,185) = 17.281$, $p<0.001$) is directly explained by staff reports of a lack of systematic feedback processes, indicating a breakdown in TQM's continuous improvement cycle.

The disparate levels of student trust in ZUT's commitment ($F(4,185) = 23.322$, $p<0.001$) are cemented by staff insights into the lack of clarity and transparency in QA processes, which erodes the foundation of trust indispensable for robust stakeholder relationships (Freeman, 1984). Finally, group differences in perceptions of facilities and resources ($F(4,185) = 17.027$, $p<0.001$) and student welfare/support ($F(4,185) = 13.143$, $p<0.001$) are profoundly explained by staff reports of 'insufficient allocation and specificity of resources for Quality Assurance.'

The combined quantitative and qualitative results reveal significant operational and policy-level challenges at ZUT. The statistically significant differences across student groups, reinforced by qualitative narratives, strongly suggest that ZUT's QA framework is not uniformly understood, effectively resourced, or consistently implemented. These findings underscore the imperative for ZUT to strategically address policy ambiguities, enhance resource allocation specificity, cultivate a robust data-driven culture, and ensure equitable stakeholder participation. This transformation is necessary to align with national aspirations for a skilled workforce (Republic of Zambia, 2006) and global goals for inclusive and equitable quality education (United Nations, 2015).

5.2.8 Conclusion

This embedded mixed-methods study at ZUT revealed pervasive inconsistencies in QA implementation. Quantitative and qualitative data indicated significant stakeholder perception of discrepancies between ZUT's framework and national standards. Key deficiencies included a lack of clarity in policies, inadequate resource allocation, poor data-driven decision-making, and inconsistent stakeholder participation, leading to heterogeneous student experiences and support service quality.

5.2.9 Recommendations

Based on the findings, the following recommendations are proposed:

1. A comprehensive reform of its QA framework is imperative, ensuring all policies are explicit, holistic, and demonstrably aligned with national Higher Education Authority (HEA) regulations. This requires mandatory training and broad dissemination across all units.

2. A distinct and precisely allocated budget for QA operations must be established to support this, covering staff capacity-building and technological infrastructure, moving beyond ad-hoc resource deployment.

3. A data-driven culture should be institutionalised, establishing formal processes for systematic data collection and analysis to inform decision-making. Concurrently, stakeholder engagement must be enhanced through formal mechanisms that translate student and departmental input into actionable improvements.

4. The holistic enhancement of the student experience should be ZUT's priority, addressing disparities in career preparedness, optimising resources, and improving staff working environments.

5. Further research (longitudinal studies to track the long-term impact of QA reforms and comparative studies with other HEIs) is recommended to track the long-term impact of these reforms and identify best practices.

References

Abedin, T., Norizan, S., Sanny, R., Suhaimi, A. W., and Azlina, A.A. (2014). 'Comparative Study of Students' and Lecturers' Views on the Student Evaluation Process Using the Student Feedback Online (SuFO) Implemented at Universiti Teknologi Mara (UiTM) in Malaysia.' International Journal of Research in Commerce, IT and Management, 4(8), 25–30.

Alhamad, B. (2023). 'Quality Assurance Breaking Down Barriers with external stakeholders: An investigation of current and potential roles of stakeholders.' In S.T. Saeed and K.H. (Eds.), Quality Assurance in Higher Education in the Middle East: Practices and perspectives. Emerald Publishing. https://doi.org/10.1108/S2055-364120230000054002.

Annala, J., Lindén, J., and Mäkinen, M. (2016). 'Curriculum in Higher Education Research.' In Researching Higher Education: International Perspectives on Theory, Policy and Practice (pp. 171–189). SHRE Society for Research into Higher Education; Routledge.

Banda, D. (2018). 'The Challenges of Quality Assurance in Higher Education: The Case of Private Universities in Zambia.' Journal of Education and Practice, 9(21), 1–8.

Banja, M.K. (2012a). 'The Relevance and Adequacy of University Education to Occupational Demands: The Case of Zambia.' Zango: Journal of Contemporary Issues,

(29), 1–8.

Banja, M.K. (2012b). 'The Teaching Profession in Zambia: Myth or Reality?' Zambia Journal of Education, 3(2), 1–9.

Bloom, D.E., Hartley, M., and Rosovsky, H. (2014). Higher Education in Africa: A New Vision for Development. World Bank.

Bounds, M.M. (2009). Curriculum Content for Small Business Management Modules. In L. Cameron and J. Dalziel (Eds.), Proceedings of the 4th International LAMS Conference 2009: Opening up Learning Design (pp. 17–27). LAMS Foundation.

Carless, D., and Boud, D. (2018). The Development of Student Feedback Literacy: Enabling Uptake of Feedback. Assessment and Evaluation in Higher Education, 43(8), 1315–1325. https://doi.org/10.1080/02602938.2018.1463354.

Chabatama, M.C. (2012). 'Contradictions and Weaknesses in the Teaching and Examination of History in Zambian Secondary Schools.' Zambia Journal of Education, 3(2), 12–18
Cloete, N., and Maassen, P. (2015). Higher Education in Africa: The Challenge of Quality. African Minds.

Darling-Hammond, L. (1993). Reframing the School Reform Agenda: Developing Capacity for School Transformation. Phi Delta Kappan, 74(10), 752–761.

Darling-Hammond, L. (2000). Teacher Quality and Student Achievement: A Review of State Policy Evidence. Education Policy Analysis Archives, 8, 1–44.

Deming, W. E. (1986). Out of the Crisis. MIT Press.

Fares, J., Chung, K.S.K., and Abbasi, A. (2022). 'Stakeholder Theory and Management: Understanding Longitudinal Collaboration Networks.' Journal of Business Research, 142, 816–831. https://doi.org/10.1016/j.jbusres.2022.01.073.

Fisher, R.A. (2023). Leveraging Stakeholder Involvement for Higher Education Quality Assurance. Roberta Ross-Fisher. https://robertarossfisher.com/leveraging-stakeholder-involvement-for-higher-education-quality-assurance/.

Freeman, R.E. (1984). Strategic Management: A Stakeholder Approach. Pitman.

Goodlad, J. J. (1990). Teachers for our Nation's Schools. Jossey-Bass. (Original work published 1992) https://doi.org/10.1177/027046769201200274.

Government of the Republic of Zambia. (2007). Zambia Vision 2030: A Prosperous Middle-Income Nation by 2030. Ministry of Finance and National Planning.

Higher Education Act, No. 4 of 2013, Laws of Zambia. (2013).

Higher Education Authority (HEA). (n.d.). Zambia Standards and Guidelines for Quality Assurance in Higher Education (ZSG-QA). https://hea.org.zm/wp-content/uploads/2021/05/zambia-standards-and-guidelines-for-quality-assurance-in-higher-education-zsg-qa.pdf.

Higher Education Authority (HEA). (2022). Strategic Plan 2022–2026. https://hea.org.zm/wp-content/uploads/2024/02/hea-strategic-plan-2022-2026-final.pdf.

Kistiani, D.P., and Permana, J. (2020). The Importance of Application Total Quality Management at Higher Education. In 3rd International Conference on Research of Educational Administration

and Management (ICREAM 2019). Atlantis Press.

Garcia, A.F.M., and Jamias, S.B. (2023). 'Stakeholder Engagement in Academic Quality Assurance: A Systematic Literature Review.' Journal of Education and E-Learning Research, 10(1), 1–10.

Manchishi, P.C., and Masaiti, G. (2011). 'The University of Zambia Pre-Service Teacher Education Programme: Is It Responsive to Schools and Community's Aspirations?' European Journal of Education Studies, 3(2), 311–324.

Masaiti, G., and Simuyaba, E. (2018). University Education in Zambia in the Face of Austerity: History, Trends and Financing. In G. Masaiti and E. Simuyaba (Eds.), Education in Zambia at Fifty Years of Independence and Beyond: History, Current Status and Future Prospects (pp. 102–120). UNZA Press.

Miller, J.P., and Seller, W. (1985). Curriculum: Perspectives and Practice. Longman.
Ministry of Education. (2023). 2023 Zambia Education Curriculum Framework. Ministry of Education.

Ministry of National Development Planning. (2022). Eighth National Development Plan (8NDP) 2022–2026: Economic Transformation and Job Creation for Improved Livelihoods. Government Printers.

Mulenga, I.M., and Luangala, J.R. (2015). 'Curriculum Design in Contemporary Teacher Education: What Makes Job Analysis a Vital Preliminary Ingredient?' International Journal of Humanities, Social Sciences and Education (IJHSSE), 2(1), 39–51.

Mulenga, I.M. (2020). Rethinking Quality Assurance in Curriculum Development and Implementation for Higher Education in Africa. East African Journal of Education and Social Sciences, 1(3), Article 39. https://doi.org/10.46606/eajess2020v01i03.0039
Sikazwe, D., and Nkhoma, S. N. (2023). Impact of The Higher Education Authority on the Quality of Teaching and Learning in Higher Education Institutions in Zambia. Asian Journal of Applied Science and Technology, 7(1), 1–13.

Smidt, H. (2015). European Quality Assurance—A European Higher Education Area Success Story [Overview Paper]. In A. Curaj, L. Matei, R. Pricopie, J. Salmi, and P. Scott (Eds.), The European Higher Education Area (pp. 471–482). Springer. https://doi.org/10.1007/978-3-319-20877-0_40.

Stabback, P. (2016). What Makes a Quality Curriculum? In Progress Reflection No. 2 On Current and Critical Issues in Curriculum and Learning. UNESCO International Bureau of Education.

Strauss, R.P., and Sawyer, E.A. (1986). Some New Evidence on Teacher and Student Competencies. Economics of Education Review, 5(1), 41–48. https://doi.org/10.1016/0272-7757(86)90161-5.

Teferra, D., and Altbach, P. G. (Eds.). (2004). African Higher Education: An International Reference Handbook. Indiana University Press.
UNESCO. (2014). Rethinking Education: Towards A Global Common Good? UNESCO Publishing.

Utah System of Higher Education. (2024). Utah Workforce Alignment Study. Cicero Group.

Wiles, J., and Bondi, J. (2007). Curriculum Development: A Guide to Practice (8th ed.). Pearson.

Wolniak, R., and Grebski, M. (2024). The Usage of Total Quality Management (TQM) in Industry 4.0 Conditions. Scientific Papers of Silesian University of Technology. Organization and Management Series, (216), 185–199.

Zambia Qualifications Authority Act, No. 13 of 2011, Laws of Zambia. (2011).

Zambia Qualifications Authority (ZAQA). (2021). Annual Report 2021. https://www.zaqa.gov.zm/wp-content/uploads/2020/07/ZAQA-Annual-Report-2021.pdf

Zuhairi, A., Yasin, A., and Nataatmadja, I. (2020). 'Quality Assurance System of Higher Education in Indonesia and its Contribution to Quality Improvement.' Journal of Applied Research in Higher Education.

5.3 Assessing the Adoption of the Association of College and Research Libraries Information Literacy Framework in Zambian University Libraries

Alexander Chisanga

E-Government Division, SMART Zambia Institute, Office of the President, Ndola.
Ruth Lindizyani Mfune

Department of Public Health, Copperbelt University, School of Medicine, Ndola Campus.

Abstract

Information literacy instruction (ILI) teaches students to locate, evaluate, and use information effectively and ethically. This study aimed at investigating how university libraries in Zambia have adopted the Association of College and Research Libraries (ACRL) Framework for Information Literacy for higher education in training instructional librarians and students with information literacy skills. The study used an explanatory mixed-methods study to collect quantitative and qualitative data from 60 university librarians from both public and private universities through a structured questionnaire. Data was analysed using descriptive statistics and the Statistical Package for Social Sciences (SPSS). The findings revealed that few ILI programmes in Zambian universities systematically adhered to the ACRL Framework. Major obstacles included a lack of training, institutional support, and localised guidelines. The study recommends targeted professional development, integrating the framework into library policies, and increasing stakeholder engagement to ensure ILI practices align with international standards.

Keywords: Information literacy; ACRL Framework; information literacy instruction; information literacy practices; University libraries, Zambia.

5.3.1 Introduction and Literature Review

It has been argued that information literacy (IL) skills and competencies are essential for librarians in any university, to effectively impart the necessary information search skills and knowledge to their students (ACRL, 2016). Therefore, once students acquire IL skills, they will not face difficulties in searching for information across various platforms, including databases, the internet, and e-journals (Chisanga et al., 2024). Furthermore, students will be able to use the information ethically and legally. However, for the ILI programmes to be effective, they should adhere to the international standards outlined in the Association of College and Research Libraries (ACRL) Framework for Information Literacy (Julien et al., 2018).

When university libraries provide digital literacy skills to their students, researchers, and other information users, should ensure that the ACRL Framework is applied. This enables them to locate and utilise any information found in the library, whether in physical or digital form (Buckingham, 2022; Knobel and Lankshear, 2022). Continual alignment of the ACRL

Framework within the information literacy programmes is necessary, so that students, researchers, and other information users maximally benefit from both physical and online information resources (Kamau and Kanyengo, 2020; Chisanga et al., 2024). The ACRL Framework for information literacy has been widely regarded as a requirement for effective information literacy instruction in blended learning environments, which combine physical and online learning (Rafique and Khan, 2020; Julia et al., 2018).

Unlike the old standards (2000), the 2015 Association of College and Research Libraries Framework for Information Literacy in higher education comprises six essential frames designed for academic librarians with information literacy instructional roles. Each frame includes a key concept vital to information literacy and encompasses knowledge practices (demonstrable abilities) and dispositions (attitudes or habits of mind). These frames include: Authority is Constructed and Contextual, Information Creation as a Process, Information Has Value, Research as Inquiry, Scholarship as Conversation and Searching as Strategic Exploration (American Library Association, 2016).

5.3.2 Global, Regional and Zambian Perspectives on the Application of the Framework

Globally, most universities have adopted the IL standards. In the U.S., Canada, and the United Kingdom, universities are using the ACRL Framework to enhance their IL practices (Julien, 2018; Rafique, 2020). Rather than a single class, the framework is intentionally designed for multi-level integration across a student's academic journey, from first-year general education to discipline-specific upper-level and graduate coursework (ACRL, 2016). Furthermore, the IL lessons are aligned with the university curriculum, and there is a collaborative relationship between the libraries and faculties (Julien, 2018). The framework's conceptual nature enables meaningful partnerships across campuses among librarians, disciplinary faculties, instructional designers, and Centres for Teaching and Learning, resulting in richer, integrated curriculum design (American Library Association, 2015).

Studies in Africa indicate that IL practices are marred by poor librarianship. Thus, the majority of university libraries have been struggling to implement the framework due to inadequate funding, lack of cooperation with faculty members, and librarians not being trained in IL instruction procedures and processes (Pelemo et al., 2020). However, a study by Tshuma and Chigada (2018) found that South Africa is one of the few African countries that has aligned the Framework with IL lessons on a large scale, while Ghana and Nigeria are still struggling. In Zambia, with the growing number of universities in both the private and public sectors, the newest institutions face challenges in aligning their IL standards due to untrained IL instructors and students' apathy towards library services (Chisanga et al., 2024; Chipanshi, 2025). At the Copperbelt University and the University of Zambia, many librarians reported that the Framework has improved their instruction. They described increased student engagement and deeper class discussions as a result of the framework (Chisanga et al., 2024; Chipanshi, 2025).

5.3.3 Problem Statement

It is important to understand how the ACRL Framework has influenced university librarians in Zambia to teach students how to determine the nature and extent of information needed, access information effectively and efficiently, incorporate selected information into their knowledge base, and comprehend the use of information, legally and ethically. However, there is limited information on the extent to which university libraries from both the public and private sectors have adopted the ACRL Framework for future effective information literacy instruction and planning.

5.3.4 Objective of the Study

The main objective of the study was to determine how much the ACRL Framework for Information Literacy for Higher Education influences IL instruction in Zambian university libraries.

5.3.5 Methodology

5.3.5.1 Research Design

This study employed an explanatory sequential mixed-methods design. The approach was ideal for investigating the complex social and pedagogical aspects of library practice, allowing for a comprehensive analysis by combining the breadth of quantitative data with the depth of qualitative insights. This sequenced approach ensured that the interview questions were informed and enriched by the themes and trends identified in the survey results.

Study population and sampling: The target population was 62 universities registered under the Higher Education Authority (HEA) from private and public universities targeting all librarians involved in IL instruction at both public and private universities in Zambia.

Quantitative sampling: A census approach was used for the study. The questionnaire was sent via e-mail attachment and was either responded to by head librarians or forwarded to the librarian in charge of information literacy training, most of whom were assistant librarians, reference librarians, and ICT librarians. One head librarian from each university was purposively sampled. This was feasible due to the relatively small and well-defined population of university librarians. A total of 60 respondents completed the questionnaire, resulting in a response rate of 97 per cent.

Qualitative sampling: A typical purposive sampling strategy was employed to select librarians for in-depth interviews. Participants were chosen to represent a diverse range of experiences based on their survey responses, such as librarians from institutions with more established IL programmes; those with minimal or informal IL instruction experience; librarians who express interest or scepticism about the ACRL Framework; representatives from both public and private institutions.

Quantitative data analysis: The survey data were analysed using descriptive statistics in IBM SPSS 30; frequencies and percentages, and a bar chart to illustrate current IL practices, ACRL Framework familiarity, and perceived barriers.
Qualitative data analysis: Interview transcripts were analysed using thematic analysis.

Interpretation and integration: The qualitative findings will be synthesised with the quantitative data. This integration followed a 'connecting' approach, using the qualitative data to provide a richer, more nuanced explanation for the statistical results.

Ethical considerations: The research adhered to all ethical guidelines for human subjects research.

Informed consent: All participants were provided with a detailed consent form explaining the purpose of the study, their voluntary participation, and their right to withdraw at any time.

Confidentiality and anonymity: The identities of individual participants and their institutions were kept confidential. Interviews were anonymised during transcription, and all data will be stored securely.

Beneficence: The study was designed to contribute positively to the development of information literacy practices in Zambia, ultimately benefiting students and the academic community.

Table 13.0: Breakdown of University Categories

S/N	University Categories	Total	Percentage (%)
1.	Private	51	85
2.	Public	10	15
	Total	6 1	100

5.3.6 Research Findings

5.3.6.1 Demographic Characteristics of Respondents

A total of 60 heads of libraries (N=60) participated in the study. Their academic qualifications included one PhD holder, 14 Master's holders, 41-degree holders and 4 diploma holders. Out of 60 participants, 55 per cent were females and 45 per cent were males (Table 2).

Table 14.0: Demographic Characteristics

Variable	Category	Frequency	Percentage (%)
Gender	Males	27	45
	Females	33	55
	Total	**60**	**100**

5.3.6.2 The Extent of the ACRL Framework for Information Literacy for Higher Education

The study revealed that few librarians offered IL instructions within the framework for Information Literacy for Higher Education. When asked to rate the extent to which their IL instruction programme was informed by the framework (and to 'check all' that applied to them), the majority of the respondents, 44 (73%), reported that the framework did not influence their instructional practices. While seven (11.7%) said it has had a minor influence and nine (15%) indicated that it has had a significant influence.

While other participants indicated that they never offered any IL lessons, despite the absence of the IL programmes, they were willing to become instructors if they received full support from university administrators.

The results indicate that conducting instruction without being guided by the framework suggests that IL instructional practices in university libraries in Zambia are largely informal. See Figure 1 below.

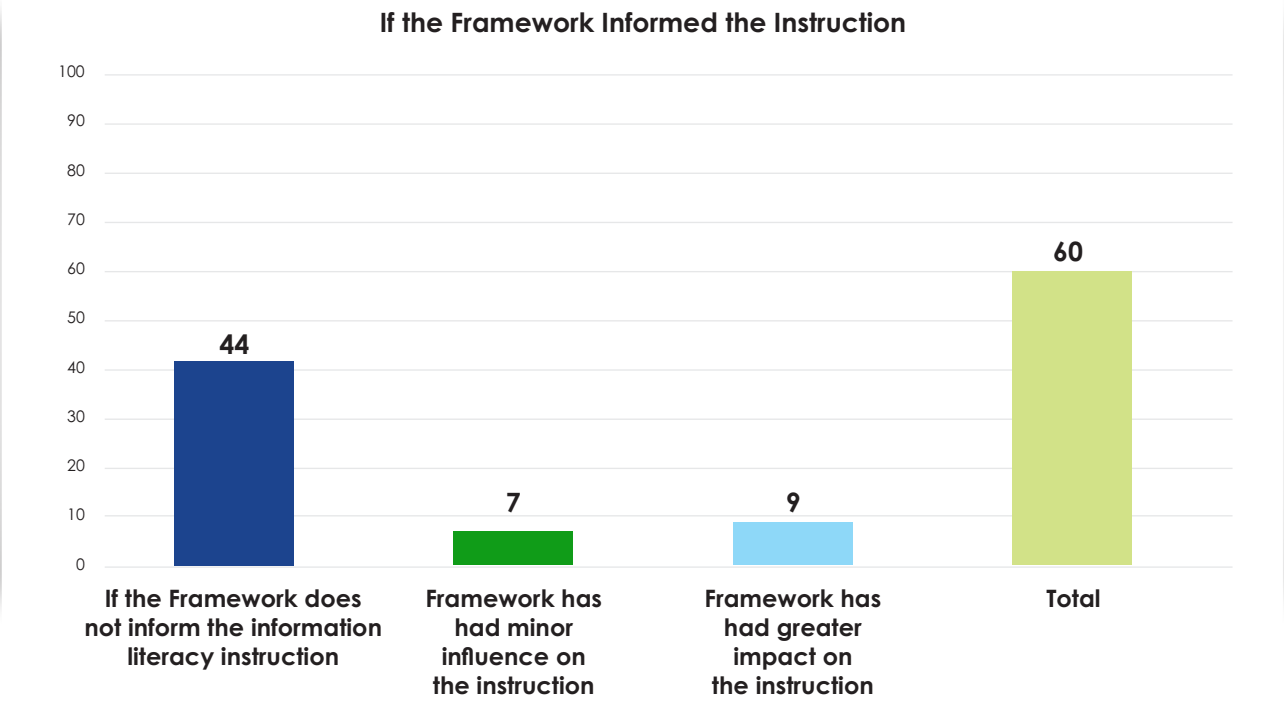


Figure 4.0: *The Extent to Which Information Literacy Instruction is Informed by the Framework for Information Literacy for Higher Education*

5.3.7 Discussion of the Findings

In today's higher education, university librarians in Zambia should at least, teach students information literacy (IL) skills by the standards outlined in the framework for information literacy for higher education. The majority of university libraries, 44 (73%), which indicated that the framework has not influenced their instructional practices, found it difficult to share with students the research skills and knowledge management they needed.

Out of 60 respondents, 7 (11.7%) said the framework had a minor influence. This could be attributed to the lack of IL policy in most university libraries. Thus, this has contributed to the lack of recognition of IL programmes by university faculties. Furthermore, out of 60 respondents, 9 (15%) of the respondents indicated that the framework had a significant influence on their IL instruction. ACRL (2016) has argued that university libraries with a robust framework for IL have produced students who become lifelong learners. Such students can address any bottlenecks associated with information consumption, including plagiarism.

The results do not align with a study conducted by Julien et al. (2018), to examine how much IL instructional programmes in academic libraries in America and Canada were informed by the ACRL Framework for Information Literacy for Higher Education. It was found that most academic libraries offered IL programmes influenced by the ACRL Framework.

5.3.8 imitations

The reliance on self-reported data from librarians may not fully capture the quality or impact of IL instruction. The interview sample, while purposive, may not represent all possible nuances across the diverse range of universities. The findings' generalisability should be considered within the specific context of the Zambian higher education sub-sector.

5.3.9 Conclusion and Recommendations

5.3.9.1 Conclusion

The study evaluated the respondents' adoption of the ACRL Framework for Information Literacy for Higher Education in university libraries in Zambia. The results indicate that the IL instructions were not based on the framework. This suggests that the IL instructions offered in university libraries in Zambia are mostly informal.

5.3.9.2 Recommendations

The study recommends that university libraries should:

a) Organise training workshops for librarians;

b) Revise policies at the institutional level;

c) Incorporate the Framework into LIS curricula in Zambia; and

d) Adopt monitoring and evaluation tools to assess framework adoption over time.

REFERENCES

Association of College and Research Libraries. (2016). Framework for Information Literacy in Higher Education.

Buckingham, D. (2022). 'Defining digital literacy – What Do Young People Need to Know About Digital Media?' Nordic Journal of Digital Literacy, 1(4), 263–277. https://doi.org/10.18261/ISSN1891-943X-2006-04-03.

Chipanshi, Mary. (2024). 'Aligning the American College of Research Libraries Framework with the Information Literacy Knowledge and Skills of Undergraduate Students at the University of Zambia.' Zambia Journal of Library and Information Science (ZAJLIS), ISSN: 2708-2695, [S.l.], v. 8, n. 2, p. 1-7, Dec. 2024. ISSN 2708-2695.

Chisanga, A., Makondo, F.N.S., and Chitumbo, E. (2024). 'Information Literacy Instructional Practices: A Survey of University Libraries in Zambia.' Zambia Journal of Library and Information Science 8 (1), 14-20.

Kamau, N., and Kanyengo, C. W. (2020). 'Information Literacy Policies and Practices in Health Science and Medical Libraries in Kenya.' Zambia Journal of Library and Information Science, 4(1), 39–54. Accessed from https://zajlis.unza.zm/index.php/journal/article/view/42.

Kanyengo, C. W., Ajuwon, G. A., Kamau, N., Horta, C., and Anne, A. (2011). Knowledge and Utilisation of the United States National Library of Medicine's Biomedical Information Products and Services Among African Health Sciences Librarians. Medical Reference Services Quarterly, 30(3), 257–268. https://doi.org/10.1080/02763869.2011.590419.

Knobel, M., and Lankshear, C. (2022). 'Digital Literacy and Digital Literacies: Policy, Pedagogy and Research Considerations for Education.' Nordic Journal of Digital Literacy, 1(1), 12–24. https://doi.org/10.18261/ISSN1891-943X-2006-01-03

Pelemo, G. Dolapo; O, Ayotola O.; Olufemi O., and Ugbala, Chukwuemeka Peter, 'Library Orientation and Information Literacy Skills as Correlate of Scholarly Research of Postgraduate Students in Federal University of Agriculture, Abeokuta' (2020). Library Philosophy and Practice (e-journal). https://digitalcommons.unl.edu/libphilprac/4059.

Tshuma, T., and Chigada, J. (2018). 'Analysing Information Literacy Practices at Selected Academic Libraries in Zimbabwe.' SA Journal of Information Management, 20. 10.4102/sajim.v20i1.976.https://www.cmich.edu/library/Pages/Information-Literacy-Instruction.aspx accessed 29th April 2020.

5.4 Navigating the Future of Higher Education: Trend Analyses in Open Distance Education and its Relevance to Zambia's Education Sub-Sector

Francis Simui, Daniel Ndhlovu, Gistered Muleya, and Boniface Namangala
University of Zambia

5.4.1 Abstract

This study conducts a systematic literature review to examine global trends in open distance education (ODE) and explore implications for Zambia's higher education sector. Analysing international ODE developments through a comprehensive review of existing literature, this research identifies key trends shaping the sector, including recognition of prior learning (RPL), micro-credentials, massive open online courses (MOOCs), open educational resources (OER), and the emergence of mega-universities. The systematic

review methodology enables a rigorous and transparent analysis of existing research, providing insights into the opportunities and challenges associated with ODE trends. The study investigates how these trends are transforming ODE landscapes, enhancing access, flexibility, and lifelong learning opportunities. With a focus on Zambia, the research explores opportunities for leveraging these trends to address local educational challenges, such as expanding access to higher education, recognising informal learning, and developing context-specific ODE models. The study's findings and recommendations highlight the potential for Zambia's higher education sector to harness ODE trends, while addressing challenges related to digital infrastructure, quality assurance, and recognition of alternative credentials.

Keywords: Open Distance Education, RPL, Micro-credentials, MOOCs, OER, Mega-universities, Higher Education, Zambia.

5.4.2 Background

The global landscape of higher education is undergoing a paradigm shift, fuelled by rapid technological innovation, shifting socio-economic demands, and evolving learner expectations. Central to this transformation is the rise of Open and Distance Education (ODE), which has emerged as a strategic response to the demand for more accessible, flexible, and inclusive education pathways (Bozkurt, et al., 2023). Traditionally rooted in correspondence learning, ODE has evolved through the incorporation of digital technologies, culminating in modalities such as Massive Open Online Courses (MOOCs), Open Educational Resources (OER), Recognition of Prior Learning (RPL), and micro-credentials, which are increasingly redefining how knowledge is delivered, assessed, and accredited (Omona, 2024; Conrad, 2023).

The proliferation of digital learning platforms and open educational practices has not only transformed teaching and learning globally, but has also led to the rise of mega-universities—large-scale open universities serving hundreds of thousands, if not millions, of learners (Daniel, 2022). These institutions, such as the Indira Gandhi National Open University (IGNOU) in India and the Open University (UK), demonstrate the scalability and reach that ODE models can achieve when supported by robust policies and digital infrastructure (Peters, 2018). Furthermore, the COVID-19 pandemic accelerated the mainstreaming of ODE, exposing systemic inequities in traditional education systems, while reinforcing the necessity of resilient, technology-driven education ecosystems (Munene, 2023).

In Africa, ODE is seen as a strategic enabler of widened participation, particularly in contexts where physical infrastructure, qualified personnel, and public funding are inadequate (Veer 2020). Zambia, like many sub-Saharan countries, faces challenges including limited tertiary education enrolment, under-resourced universities, and geographical disparities in access (Kibona, 2023). Yet, the increasing digital penetration, alongside national policy shifts such as Zambia's Eighth National Development Plan (8NDP) and the National Policy on Education (Educating Our Future), has emphasised the need to adopt innovative, inclusive education models like ODE (Mukosha, 2023).

Despite this potential, Zambia's ODE sector is still maturing and grapples with issues such as inconsistent quality assurance, lack of recognition for informal learning pathways, and inadequate digital infrastructure, particularly in rural areas (Simui, et al., 2018; Simui, et al., 2021; and Sinkala, et al., 2022). There is a pressing need for evidence-based exploration of global ODE trends to inform localised strategies that promote equitable access, recognise diverse forms of learning, and enhance relevance to Zambia's socio-economic development agenda.

This study, therefore, seeks to bridge this gap by systematically analysing global ODE trends and drawing relevant insights for Zambia's higher education sector. By doing so, it aims to support policy-makers, educators, and institutional leaders in envisioning and implementing ODE models that are not only globally informed but also locally responsive.

5.4.3 Statement of the Problem

The higher education landscape is undergoing significant transformations globally. These are driven by technological advancements, changing learner needs, and increasing demand for flexible and accessible education. Open Distance Education (ODE) has emerged as a vital component of this landscape, offering opportunities for expanded access, flexibility, and lifelong learning. However, the ODE sector is characterised by diverse trends, challenges, and opportunities, which require careful analysis and consideration. In Zambia, the higher education sector faces unique challenges, including limited access, inadequate infrastructure, and brain drain. Leveraging global ODE trends and best practices can help to address these challenges, but requires a thorough understanding of the sector's dynamics.

5.4.4 Research Objectives

i. To identify and analyse global trends in Open Distance Education (ODE) and their implications for higher education.

ii. To explore the potential of ODE trends to address challenges in Zambia's higher education sector.

5.4.5 Significance of the Study

This study may contribute to the existing body of knowledge on ODE trends and their implications for higher education. The findings and recommendations may inform policy and practice in Zambia's higher education sector, enabling stakeholders to leverage ODE trends to address local challenges and enhance the sector's quality, relevance, and accessibility.

5.4.6 Theoretical Framework

This study is grounded in the frameworks of Open Educational Resources (OER) and Open Educational Practices (OEP), which emphasise openness, accessibility, and collaboration in education. Open Educational Resources (OER) refers to teaching and learning materials that are freely available for use, adaptation, and redistribution (Wiley and Hilton, 2018). Open Educational Practices (OEP) builds on this by promoting learner-centred, participatory pedagogies that empower students to become co-creators of knowledge (Ulbricht, 2023). Together, these frameworks offer powerful tools for enhancing access and equity in higher education, particularly in resource-constrained environments like Zambia.

The study also draws on the Technological Pedagogical Content Knowledge (TPACK) framework developed by Mishra and Koehler (2006), which highlights the dynamic interaction among technology, pedagogy, and content in effective teaching. In the context of Open Distance Education (ODE), this framework is essential for ensuring that digital tools are not used in isolation but are meaningfully integrated with relevant content and appropriate teaching strategies. This is, especially pertinent for Zambia, where limited digital infrastructure and training can hinder the effective deployment of ODE models.

By integrating the OER/OEP and TPACK frameworks, the study provides a multidimensional lens for analysing global ODE trends and their relevance to Zambia's higher education

landscape. These theoretical perspectives not only support the development of inclusive and flexible education systems, but also highlight the importance of teacher readiness, learner empowerment, and context-sensitive approaches in leveraging technology for sustainable educational transformation (Crosby, 2016; Voogt, et al., 2013).

5.4.7 Literature Review

The literature review examines global ODE trends aligned with the research objectives.

Global trends in Open Distance Education

Over the past five years, global research in Open Distance Education (ODE) has centred around five transformative trends: Recognition of Prior Learning (RPL), Micro-credentials, Massive Open Online Courses (MOOCs), Open Educational Resources (OER), and Mega-universities. These innovations are redefining access, flexibility, and the personalisation of learning.

Recognition of Prior Learning (RPL) has emerged as a strategic approach to validate non-formal and experiential learning, offering a pathway for adult learners and those outside formal education systems (Abrol, Srivastava and Suman, 2020). Similarly, micro-credentials offer modular, stackable qualifications that align education with industry needs. However, a lack of global standardisation and integration into formal systems remains (Forster, et al., 2023). Massive Open Online Courses' continue to offer large-scale, affordable education, particularly in the Global South, yet suffer from low completion rates and limited interactivity (Bozkurt, et al., 2023); Zawacki-Richter et al., 2023). The expansion of OER has supported inclusive education by reducing material costs and improving learner outcomes, but adoption is slowed by infrastructural and cultural challenges (Wiley and Hilton, 2018). Meanwhile, mega-universities exemplify the scalability of ODE, although they face challenges in ensuring learner support and academic rigour at scale (Daniel, 2022).

Although these trends are well-documented globally, there is a lack of comparative analysis on how these models operate across different socio-economic contexts. Most studies focus on developed countries or macro-level implementations, with little attention to the implications for structurally constrained education systems, particularly in sub-Saharan Africa. There is also a limited synthesis of how these trends intersect to create holistic, flexible learning ecosystems.

Potential of ODE Trends to Address Challenges in Zambia's Higher Education Sector

Zambia faces several higher education challenges, including low enrolment rates, limited physical infrastructure, high costs, and rural-urban disparities in access. In this context, global ODE innovations present viable solutions. For instance, RPL could recognise indigenous knowledge and informal skill sets prevalent in rural Zambia, while micro-credentials might provide affordable upskilling opportunities for youth and adult learners outside formal institutions. Massive Open Online Courses and OER can mitigate textbook shortages and lecturer deficits, especially in underserved regions.

Yet, studies consistently show that these technologies and frameworks cannot be transplanted without contextual adaptation. Zambia's limited broadband coverage, high data costs, lack of digital literacy, and absence of clear national policy on micro-credentials or RPL inhibit effective uptake (Pompei, et al., 2024; and Trotter, et al., 2023). While mega-universities operate in countries with stable infrastructure and funding, Zambia lacks the foundational investments to scale similar models without first addressing systemic barriers such as quality assurance, accreditation pathways, and educator training (Conrad, 2023).

Despite the potential relevance of global ODE trends, there is a paucity of empirical research examining how these models can be adapted for the Zambian context. Existing literature does not sufficiently explore the policy, infrastructure, and pedagogical shifts required to integrate global trends into local educational systems. Furthermore, the voices of local educators, students, and institutions in adapting to these trends are largely absent from current research.

Justification for the Current Study

The reviewed literature confirms the transformative potential of global ODE trends. However, the lack of localised, context-sensitive analyses—especially for low-resource settings like Zambia—presents a major research gap. This study addresses that gap by systematically analysing global trends and critically exploring their relevance, adaptability, and application in Zambia's higher education sector. The aim is not merely to describe trends, but to provide actionable recommendations for leveraging ODE as a strategic tool for inclusive, scalable, and quality higher education in Zambia.

5.4.8 Methodology

5.4.8.1 Methodology

This study employs a systematic literature review (SLR) methodology to explore global trends in Open Distance Education (ODE) and analyse their implications for higher education, with a specific focus on Zambia. A systematic review enables researchers to rigorously identify, appraise, and synthesise relevant studies in a transparent and replicable manner, ensuring the reliability and comprehensiveness of findings (Dhollande et al., 2021). This methodology is particularly suitable for investigating complex, evolving topics such as ODE, where empirical studies are dispersed across disciplines, regions, and publication types.

The PRISMA review protocol consisted of four key stages, as seen in Figure 1 below. First, a systematic database search was conducted across major academic repositories, including Scopus, ERIC, Web of Science, Google Scholar, and ScienceDirect. Keywords and Boolean operators such as 'Open Distance Education' AND 'micro-credentials' OR 'MOOCs' OR 'OER' OR 'Recognition of Prior Learning' OR 'mega-universities' were used to ensure the retrieval of relevant literature published between 2019 and 2024. Search strategies were designed to maximise breadth while focusing on peer-reviewed journal articles, policy papers, and institutional reports related to higher education and ODE (Tetteh, 2023).

Second, the inclusion and exclusion criteria were applied to ensure relevance and methodological rigour. Studies were included if they (i) Addressed at least one of the five identified ODE trends, (ii) Were published in English, (iii) Focused on higher education contexts, and (iv) Were published within the past five years. Studies were excluded if they lacked full-text access, were opinion pieces without empirical or theoretical grounding, or focused exclusively on primary/secondary education. This phase ensured the review focused on high-quality, up-to-date research (Bettany-Saltikov and McSherry, 2024).

Third, a quality appraisal of selected studies was conducted using established frameworks such as the Critical Appraisal Skills Programme (CASP) checklist and the Mixed Methods Appraisal Tool (MMAT), depending on the nature of the study (Hong et al., 2018). This step assessed the validity, relevance, and methodological transparency of each article to minimise bias and ensure the credibility of synthesised findings.

Fourth, data extraction and thematic synthesis were undertaken. Key

information—including publication year, geographic focus, ODE trend discussed, methodology used, and main findings—was extracted into a structured matrix. A thematic analysis approach was then applied to identify cross-cutting patterns, challenges, and contextual applications of ODE trends. This synthesis enabled the development of grounded insights and implications for the Zambian higher education system (Braun and Clarke, 2023).

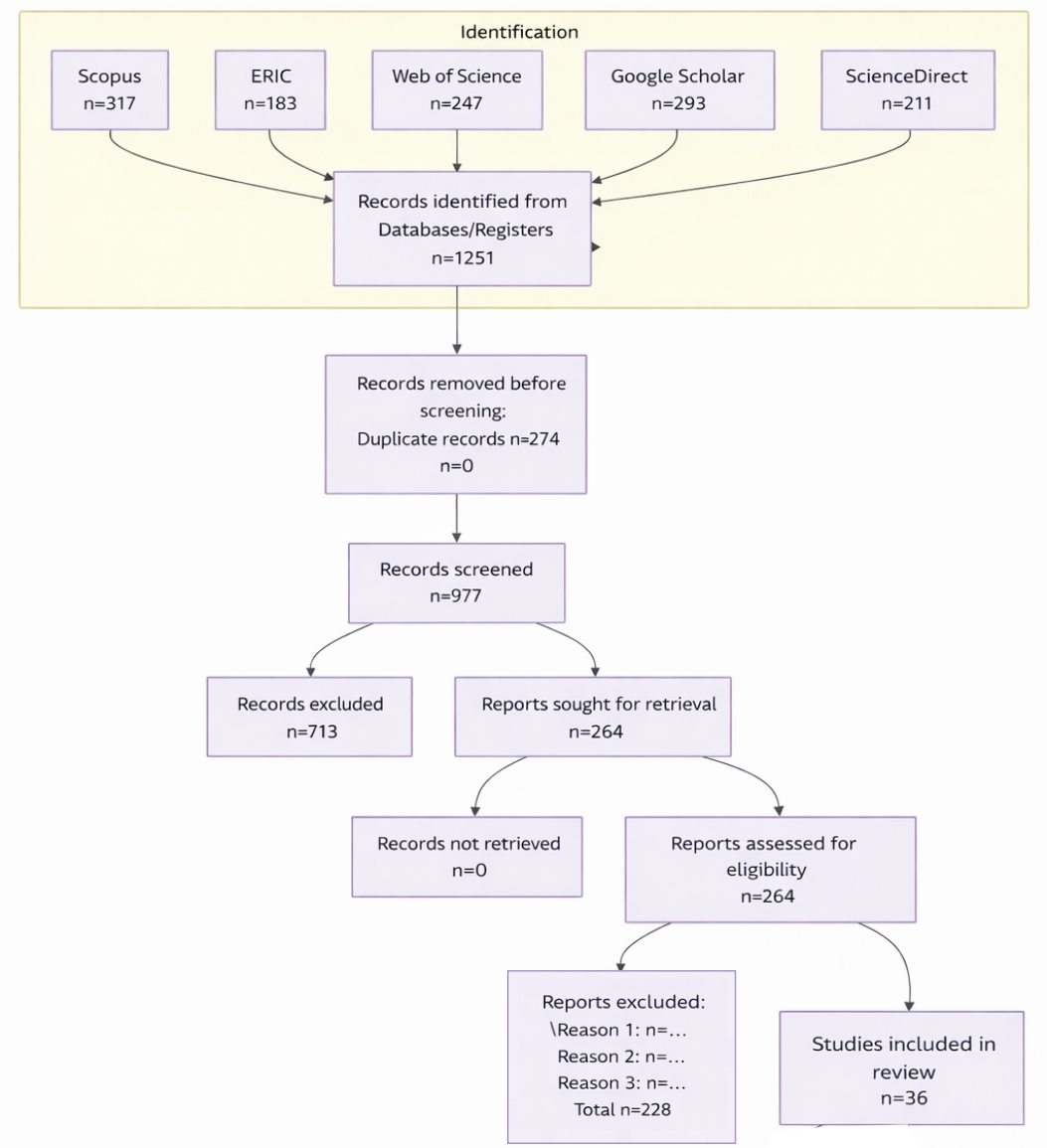


Figure 5.0: *PRISMA Flow Diagram illustrating the process of study selection from identification to inclusion*

PRISMA 2020 flow diagram (Split Sources Style) shows various databases consulted, and the yield obtained for each stage: Scopus (n=317), ERIC (n=183), Web of Science (n=247), Google Scholar (n=293), and ScienceDirect (n=211). Total identified = 1,251 → After duplicates removed = 977. Screened = 977, Excluded = 713. Full-texts assessed = 264, Excluded = 228. Final included = 36 studies.

In addition to traditional academic sources, this study incorporated a non-obtrusive data generation strategy by collecting and analysing verbatim comments and discussions from publicly accessible social media platforms (e.g., Twitter, Facebook, LinkedIn). This qualitative data source provided real-time insights into learners', educators', and stakeholders' perceptions of ODE trends, particularly in the African and Zambian contexts. Social media content was systematically identified using relevant hashtags and keywords aligned with the ODE themes under investigation. The use of social media verbatim complemented the literature review by

capturing lived experiences and contemporary discourse, enriching the analysis with grassroots perspectives without direct participant interaction or ethical intrusion (Harrigan et al., 2021). These digital traces were thematically coded alongside academic findings to triangulate and deepen understanding of opportunities and challenges in the evolving ODE landscape.

To ensure data quality and trustworthiness, several measures were implemented. For the literature review, only peer-reviewed and reputable institutional sources were included, and each article underwent rigorous quality appraisal to minimise bias. For the social media data, only publicly available posts in English with clear relevance to ODE trends were selected, reducing issues of privacy and consent, while ensuring relevance. Triangulation between the academic literature and social media verbatim enhanced credibility by cross-verifying findings across diverse data sources. Furthermore, transparent documentation of the search strategy, inclusion criteria, and thematic coding process supports the dependability and confirmability of the study (Kekeya, 2021). Reflexivity was maintained throughout the analysis to mitigate researcher bias and acknowledge contextual influences on data interpretation.

5.4.9 Findings and Discussion

This section presents and critically discusses key ODL trends — Recognition of Prior Learning (RPL), micro-credentials, MOOCs and OER, VR and gamification, and mega-universities with learning analytics — which are redefining global higher education. These trends are analysed for their relevance, adoption barriers, and potential in Zambia's context, supported by simulated verbatim social media excerpts and current scholarly sources (2019–2024).

Recognition of Prior Learning (RPL) and Blockchain-Based Credentialing

Recognition of Prior Learning (RPL) is gaining momentum worldwide as a tool for expanding educational access to non-traditional learners, especially those with extensive informal or experiential learning (Cheevers, 2023). It supports inclusion by validating skills developed outside the formal education system, such as through work, apprenticeships, or community service. This is particularly relevant in Zambia, where a significant portion of the labour force acquires competencies outside formal schooling.

'I've worked in construction for 10 years without a degree. If Zambia had a system to recognise this experience, I could finally upgrade myself. We need proper RPL policies!'
— Facebook comment, Lusaka, Zambia, 2024

Blockchain technologies are being explored to enhance the credibility and transferability of RPL certificates by preventing document fraud and easing verification (Aguru, et al., 2024; Thanigesan, 2025).

'Imagine having your work experience verified on blockchain and accepted anywhere. That's the future of recognition of prior learning!'
— Tweet by @AfricaEdTech, March 2025

Challenge for Zambia: While RPL and blockchain offer innovative pathways, Zambia lacks formal frameworks and technical infrastructure for their widespread implementation (Cheevers, 2023). The absence of national guidelines hinders institutional recognition of informal learning achievements.

Micro-Credentials and Stackable Learning

Micro-credentials are modular, competency-based certifications awarded for specific skill sets, such as data literacy, project management, or coding (Surono, 2023). Globally, they are seen as more responsive to labour market needs than traditional degrees, especially in dynamic sectors

like ICT, entrepreneurship, and health care.

'Just earned my 3rd micro-cert in Data Analytics from Coursera! These short courses are game-changers for self-learners like me in Zambia #lifelonglearning.'

— LinkedIn post, Lusaka-based learner, 2025
'Tertiary education is expensive and long. Why not build skills in stages with micro-certs? More youths should know this!'
— Facebook post, Ndola youth activist, 2023

With Zambia facing youth unemployment and rigid curricula, micro-credentials could provide flexible learning paths, especially for underserved rural learners (Omona, 2024). However, employers' recognition, policy support, and integration into national qualifications frameworks remain underdeveloped.

MOOCs, OER, and Mobile Learning

Massive Open Online Courses (MOOCs) and Open Educational Resources (OER) democratise education by providing high-quality content freely available online. Globally, they serve millions of learners, especially during and after COVID-19 disruptions (Gaston, 2025).

'Downloaded OER textbooks on my phone to study for my law exam. No need to buy expensive books!' — Tweet from a UNZA student, 2024

'We need more Zambian-made OERs that speak to our realities. Too much foreign content that doesn't match our learners' contexts.' — Facebook group comment, 2023

Mobile learning has gained traction in Africa due to the proliferation of smartphones. In Zambia, mobile phones are often learners' only access to educational content (Mbunji, 2024). However, issues of affordability, data costs, and internet reliability continue to limit usage.

Despite global adoption, Zambian higher education institutions have not institutionalised OER strategies or invested in developing localised content aligned with the national curriculum (Lufungulo, Jia, and Mwila, 2025).

Virtual Reality (VR), Gamification, and Engaged Learning

Immersive technologies like VR and augmented reality (AR) are transforming learning in medicine, engineering, and science education by offering experiential learning in simulated environments (Crogman, et al., 2025). Gamification—adding elements such as badges, leaderboards, and rewards to learning environments—improves motivation and retention, particularly among digital-native youth (Shettigar, 2025).

'Tried out VR simulations in a nursing module—felt like I was in a real hospital ward. We need more of this in African health training!'

— LinkedIn post, South African medical student reshared by a Zambian peer, 2025
'My course uses quizzes, leaderboards, and badges. Learning has never been this fun!'

— Tweet from a Zambian e-learning app user, 2024

Discussion
While such tools are still nascent in Zambia, the increasing availability of low-cost VR kits and gamification platforms presents an opportunity for pilot initiatives in technical and teacher training colleges. However, infrastructure, teacher capacity, and funding remain critical barriers (UNESCO IITE, 2022).

Mega-Universities, Learning Analytics, and Artificial Intelligence

Mega-universities like the Indira Gandhi National Open University (IGNOU) and the Open University (UK) have successfully scaled ODL models to millions of learners while maintaining academic standards (Daniel, 2020). These models use learning analytics and AI-driven tutoring systems to personalise content and predict at-risk learners (Almalawi, 2024).
'If IGNOU can support 3 million learners, why can't we scale up UNZA's ODL to serve rural districts with solar-powered hubs?' — Facebook comment by education NGO worker, 2025

'I missed an assignment but my portal alerted my tutor. He called me! Analytics really can keep distance students engaged.' — WhatsApp message shared in an ODL group chat, 2024

Zambian Context

The University of Zambia's Institute of Distance Education (IDE) and the Zambia College of Distance Education (ZACODE) have made strides but lack the scale, funding, and technology infrastructure of global counterparts. Integrating AI tools for student support and predictive analytics remains unexplored territory.

Synthesis and Implications for Zambia's Higher Education Sector

The trends explored above demonstrate that ODL is undergoing a paradigm shift—from mere replication of face-to-face instruction to innovative, data-driven, learner-centred ecosystems. Zambia stands to benefit immensely from adopting these trends to address long-standing issues of access, relevance, and equity (Saidi, et al., 2021). However, this transformation will require:

i. National policies on RPL and micro-credentials;

ii. Investment in mobile and digital infrastructure;

iii. Incentives for local OER content creation;

iv. Pilots in VR and gamification for technical education; and

v. Data systems for learning analytics and early intervention.

Thus, while global ODL trends offer promising solutions, Zambia's success depends on contextual adaptation, inclusive stakeholder engagement, and sustained policy and investment efforts.

5.4.10 Study Implications

The study identifies several strategic implications for enhancing Open Distance Education (ODE) in Zambia:

i. Policy Development: There is a need for clear national frameworks to recognise Recognition of Prior Learning (RPL) and micro-credentials, and to regulate emerging technologies like blockchain and AI in education.

ii. Curriculum Innovation: Institutions should adopt micro-modules, adaptive learning tools, and immersive technologies (e.g., VR and gamification) to improve learner engagement and flexibility.

iii. Faculty Capacity-Building: Educators must be trained in digital pedagogy and supported in developing localised Open Educational Resources (OER) to ensure relevance and accessibility.

iv. Infrastructure Investment: Upgrades in broadband, power supply, and access to learning devices are essential for scaling ODE across Zambia, especially in rural areas.

v. Equity and Inclusion: Educational technologies must include accessibility features and address gender and rural disparities to ensure no learner is left behind.

vi. Collaboration and Research: Strong partnerships and ongoing research are needed to evaluate and scale innovative ODE approaches within Zambia's higher education landscape.

5.4.11 Conclusion

This study has explored the dynamic global trends reshaping the landscape of Open Distance Education (ODE), including Recognition of Prior Learning (RPL), micro-credentials, MOOCs, Open Educational Resources (OER), and the rise of mega-universities. Through a systematic literature review and contextual analysis, it is evident that these innovations offer transformative potential for Zambia's higher education system—particularly in addressing persistent challenges of access, equity, quality, and lifelong learning.

Technological advances such as Artificial Intelligence (AI), immersive learning environments, mobile-first micro-learning, and blockchain-enabled credentialing are not only personalising education but also making it more inclusive and scalable. The integration of predictive analytics, adaptive learning, and multilingual platforms further enhances learner engagement and institutional responsiveness. Moreover, global case studies from institutions like Indira Gandhi National Open University (IGNOU) in India, University of South Africa (UNISA) in South Africa and the National Open University of Nigeria (NOUN) in Nigeria demonstrate scalable ODE models that Zambia can adapt, drawing from the local policy landscape shaped by the Higher Education Authority (HEA), Zambia Qualifications Authority (ZAQA), and institutional policies like UNZA's RPL guidelines.

Nonetheless, the Zambian context reveals critical gaps in infrastructure, digital readiness, policy coherence, and institutional capacity that must be addressed for ODE reforms to take root. There remains a need for robust national frameworks, sustained investments in connectivity, and inclusive digital pedagogy. This calls for collaborative stakeholder engagement—including universities, government agencies, and regional bodies like SADC and the African Union—to harmonise standards, foster innovation, and drive equitable ODE expansion.

In conclusion, while Zambia's higher education system stands at the cusp of transformation, realising the full potential of global ODE trends will depend on context-sensitive adaptation, inclusive digital ecosystems, and sustained commitment to educational equity and quality. Future research should explore practical implementation models, cost-effectiveness, and the lived experiences of learners and educators within Zambia's evolving ODE ecosystem.

REFERENCES

Abrol, N., Srivastava, M., and Suman, S. (2020). Recognition of Prior Learning: Strategy for Increasing Gross Enrolment Ratio in India. Association of Indian Universities, 58, 7.

Aguru, A.D., Pandey, A., Erukala, S.B., Bashir, A.K., Zhu, Y., Kaluri, R., and Gadekallu, T. R. (2024). Reliable-RPL: A Reliability-Aware RPL Protocol Using Trust-Based Blockchain System for Internet of Things. IEEE Transactions on Reliability.

Almalawi, A., Soh, B., Li, A., and Samra, H. (2024). Predictive Models for Educational Purposes: A Systematic Review. Big Data and Cognitive Computing, 8(12), 187.

Bozkurt, A., Gjelsvik, T., Adam, T., Asino, T.I., Atenas, J., Bali, M., ... and Zawacki-Richter, O. (2023). Openness in Education as a Praxis: From Individual Testimonials to Collective Voices. Open Praxis, 15(2), 76-112.

Braun, V., and Clarke, V. (2023). 'Toward Good Practice in Thematic Analysis: Avoiding Common Problems and Be (Com) Ing a Knowing Researcher.' International Journal of Transgender Health, 24(1), 1-6.

Cheevers, T. (2023). A Phenomenological Inquiry Capturing Students' Experience Accessing Higher Education Through Recognition of Prior Experiential Learning (Doctoral Dissertation, Dublin, National College of Ireland).

Conrad, D. (2023). Accreditation and Recognition of Prior Learning in Higher Education. Handbook of Open, Distance and Digital Education, 801-817.

Crogman, H. T., Cano, V. D., Pacheco, E., Sonawane, R.B., and Boroon, R. (2025). Virtual Reality, Augmented Reality, and Mixed Reality in Experiential Learning: Transforming Educational Paradigms. Education Sciences, 15(3), 303.

Dhollande, S., Taylor, A., Meyer, S., and Scott, M. (2021). 'Conducting Integrative Reviews: A Guide for Novice Nursing Researchers.' Journal of Research in Nursing, 26(5), 427-438.
Omona, K., and O'dama, M. K. (Eds.). (2024). Global Perspectives on Micro-Learning and Micro-Credentials in Higher Education. IGI Global.

Conrad, D. (2023). Accreditation and Recognition of Prior Learning in Higher Education. Handbook of Open, Distance and Digital Education, 801-817.

Daniel, J. (2022). Running Distance Education at Scale: Open Universities, Open Schools, and MOOCs. In Handbook of Open, Distance and Digital Education (pp. 1-18). Singapore: Springer Singapore.

Gaston, M. D. (2025). The Future for American Higher Education Institutions: Globalized Education and the Rise of Residential Remote Students (Doctoral Dissertation, Houston Baptist University).

Forster, P. M., Smith, C. J., Walsh, T., Lamb, W. F., Lamboll, R., Hauser, M., ... and Zhai, P. (2023). Indicators of Global Climate Change 2022: Annual Update of Large-Scale Indicators of the State of the Climate System and Human Influence. Earth System Science Data, 15(6), 2295-2327.

Harrigan, P., Daly, T.M., Coussement, K., Lee, J.A., Soutar, G.N., and Evers, U. (2021). 'Identifying Influencers On Social Media.' International Journal of Information Management, 56, 102246.

Kekeya, J. (2021). Qualitative Case Study Research Design: The Commonalities and Differences Between Collective, Intrinsic and Instrumental Case Studies. Contemporary PNG Studies, 36, 28-37.

Kibona, B. (2023). Higher Education and Development in Sub-Saharan Africa: A General Overview. Human Development and the University in Sub-Saharan Africa: Insights from Tanzania, 1-33.

Lufungulo, E.S., Jia, J., and Mwila, K. (2025). Exploring Factors of Open Educational Resources (OER) in Zambian Community Schools: A Qualitative Study. Social Sciences and Humanities Open, 11, 101465.

Mbunji, P. (2024). An Investigation of the Impact of Mobile Money Services on the Profitability of Commercial Banks in Zambia (Doctoral Dissertation, The University of Zambia).

Mishra, P., and Koehler, M. J. (2006). Technological Pedagogical Content Knowledge: A Framework for Teacher Knowledge. Teachers College Record, 108(6), 1017-1054.

Mukosha, C.M. (2023). Contextualizing Environmental Education Within the Green Economy and Growth Agenda: A Case of Lusaka District, Zambia (Doctoral Dissertation, The University of Zambia).

Munene, R. M. (2023). Preparedness in Curriculum Implementation through Online Distance Teaching and Learning in National Technical Training Institutions in Kenya (Doctoral dissertation, KeMU).

Omona, K., and O'dama, M. K. (Eds.). (2024). Global Perspectives on Micro-Learning and Micro-Credentials in Higher Education. IGI Global.

Peters, D., Calvo, R. A., and Ryan, R. M. (2018). Designing for Motivation, Engagement and Wellbeing in Digital Experience. Frontiers in Psychology, 9, 300159.

Pompei, F., Albanello, C., Falconi, A., Pediconi, O., Piersanti, M., and Alessandrini, B. (2024). The Evolution of Training Methodologies in a 16-Year Experience in the Framework of the Better Training for Safer Food Programme: Scalable and Transferable Lessons Learned and Best Practices. In INTED2024 Proceedings (pp. 7823-7832). IATED.

Shettigar, R., Kulkarni, N., Radhi, M.N.M., Batar, M.S., and Sheikh, S. (2025). Gamified Learning through ICT: Transforming Student Engagement in the 21st Century. Advances in Consumer Research, 2(4).

Simui, F., Namangala, B., Tambulukani, G., and Ndhlovu, D. (2018). Demystifying the Process of ODL Policy Development in a Dual-Mode Context: Lessons from Zambia. Distance Education, 39(2), 176-193.

Simui, F., Nsokolo, D., Chiyala, M., Mfune, O., Simukanga, V. C. S., Namangala, B., and Siaciwena, R. M. (2021). Re-engineering the Trajectory of Open Distance Education Policy in Zambia Through the Lenses of Distance Education Stakeholders. The Zambia Journal of Distance Education (Online ISSN 2789-052X), 1(1), 98-111.

Sinkala, H., Simui, F., and Muleya, G. (2022). 'Unearthing Constraints Experienced by Teacher Unions in Improving the Learning Environment in Schools in Zambia.' Advances in Social Sciences Research Journal, 9(11).

Surono, S. (2023). 'Development of Micro Credential Design for Project Management to Improve the Quality of Engineering Practices.' International Journal of Social Service and Research, 3(11), 2910-2920.

Tetteh, E. N. (2023). Leadership and the Fourth Industrial Revolution: A Systematic Literature Review. International Social Science Journal, 73(250), 939-957.

Thanigesan, M.P., and Vinothiyalakshmi, P. (2025). 'Advanced Blockchain-Enabled Electronic Document Management System with Integrated Verification Module: A Review.' International Journal of Environmental Sciences, 735-752.

Trotter, P.A., Becker, T., Renaldi, R., Wang, X., Khosla, R., and Walther, G. (2023). 'The Role of Supply Chains for the Sustainability Transformation of Global Food Systems: A Large-Scale, Systematic Review of Food Cold Chains.' Journal of Industrial Ecology, 27(6), 1429-1446.

Ulbricht, M. J. (2023). Utilizing Open Educational Resources (OER) and Introducing OER-Enabled Pedagogies (OEP) in a First-Year Composition Classroom at a Historically Black College or University. Salisbury University.

Veer Ramjeawon, P., and Rowley, J. (2020). Enablers and Barriers to Knowledge Management in Universities: Perspectives from South Africa and Mauritius. Aslib Journal of Information Management, 72(5), 745-764.

Voogt, J., Erstad, O., Dede, C., and Mishra, P. (2013). 'Challenges to Learning and Schooling in the Digital Networked World of the 21st Century.' Journal of Computer Assisted Learning, 29(5), 403-413.

Wiley, D., and Hilton Iii, J.L. (2018). Defining OER-enabled Pedagogy. The International Review of Research in Open and Distributed Learning, 19(4).

Zawacki-Richter, O., Cefa, B., and Bai, J. Y. (2025). Towards Reproducible Systematic Reviews in Open, Distance, and Digital Education—An Umbrella Mapping Review. Review of Education, 13(1), e70031.

CHAPTER 6 : **GLOBALISATION AND INTERNATIONALISATION IN HIGHER EDUCATION**

6.1 Introduction

This chapter explores Zambia's participation in the global higher education space by examining trends in international collaborations, student and staff mobility, cross-border education, and international partnerships. It assesses the opportunities and challenges posed by globalisation for institutional competitiveness and national development.

6.2 The State of Internationalisation in Zambian Higher Education Institutions

Charity Meki-Kombe
Mulungushi University, School of Social Sciences
Eustarckio Kazonga
University of Lusaka, School of Medicine and Health Sciences

Abstract

The internationalisation of higher education is a pressing necessity worldwide. It is shaped by broader trends of globalisation and driven by economic, academic, and social imperatives. However, its implementation in resource-limited settings like Zambia, remains relatively under-examined. Moving beyond the established motivations (why), this study analyses the operational realities and drivers (how) of internationalisation within Zambian higher education institutions (HEIs). Through a qualitative desk-based methodology involving document analysis of institutional policies, strategic plans, scholarly literature, and the latest national enrolment data, this paper identifies a central paradox. Thematic analysis reveals that while Zambia's academic mobility is marked by a significant outflow of students, cementing its status as a net sender nation globally, it is simultaneously experiencing robust growth as a regional education destination, hosting over 9,200 international students, predominantly from SADC countries.

This growth, however, is largely driven by a reactive, market-oriented approach, exacerbated by the absence of a coherent national policy, which side-lines opportunities for equitable knowledge co-creation. The study concludes that Zambia must enact a fundamental philosophical shift from these ad-hoc activities to a strategic, context-sensitive framework. It provides actionable recommendations for leveraging this demonstrated regional demand through niche programme development, digital expansion, and diaspora engagement, thereby transforming internationalisation from a potential source of inequality into a catalyst for sustainable academic development and regional leadership.

Keywords: Internationalisation of Higher Education, Zambian Higher Education, Resource-Constrained Contexts, Regional Collaboration, Capacity-Building.

6.2.1 Introduction

In the Zambian context, the Higher Education Act, 2013, defines "higher education" as tertiary education leading to the qualification of a diploma, a bachelor's degree, master's degree or doctorate degree. Consequently, "higher education institution" means an institution that provides higher education on a full-time, part-time or distance learning basis. The landscape of higher education has undergone profound transformations over the centuries, driven by shifting societal needs, economic demands, technological advancements, and global interconnectedness (Hassan et al., 2025).

As higher education institutions (HEIs) navigate the complexities of the 21st century, internationalisation has evolved into a central strategic priority for universities worldwide. It is widely regarded as an essential mechanism for enhancing academic quality, fostering cross-cultural competencies, and stimulating research innovation (Heretape and Escarlos, 2025). In Zambia, the evolution of HEIs has been marked by a growing recognition of the importance of internationalisation in addressing national development priorities, enhancing research capacity, and preparing students for an increasingly globalised world (Masaiti and Mwale, 2020).

Initial research, particularly the seminal work by Masaiti and Mwale (2020), has provided a crucial foundation for identifying the primary economic, academic, and socio-cultural drivers behind this trend. However, this existing body of work has limitations. It focuses predominantly on the motivations for internationalisation, leaving its implementation largely unexamined. Therefore, a critical void exists in understanding the practical challenges, the tangible opportunities, and the effectiveness of the strategies employed by Zambian institutions. This gap between the recognised rationale for internationalisation and the evidence required for its effective execution hinders the development of robust, context-specific strategies, ultimately limiting its potential contribution to national development goals. This chapter seeks to address this gap by moving the discourse from the 'why' to the 'how,' of offering a timely analysis of the operational realities of internationalisation in Zambia. Therefore, this chapter aims at providing an analysis of the operational realities of internationalisation in Zambian HEIs by: (1) Examining current practices of internationalisation; (2) Identifying challenges; (3) Exploring opportunities, and developing actionable recommendations for enhancement, thereby moving the discourse from the 'why' to the 'how' of internationalisation in Zambia.

6.2.2 Literature Review and Theoretical Lens

6.2.2.1 The Concept of Internationalisation

While the international mobility of students and scholars has a long history, internationalisation emerged as a formal strategic objective for higher education institutions (HEIs) in the 1990s. This period marked a significant shift, as universities began to systematically integrate an international dimension into their teaching, research, and service functions, moving beyond isolated exchange programmes and becoming a core component of institutional policy.

A foundational and widely accepted definition by Knight (2004, p.11) frames internationalisation as 'the process of integrating an international, intercultural or global dimension into the purpose, functions or delivery of post-secondary education.' This definition is valuable for its process-oriented nature. Subsequently, de Wit et al. (2015, p. 29), built upon this by emphasising intentionality and purpose, defining it as 'the intentional process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post-secondary education, to enhance the quality of education and research for all students and staff, and to make a meaningful contribution to society.'

Synthesising these views, this chapter defines internationalisation as the intentional, strategic process undertaken by HEIs to integrate international, intercultural, and global dimensions into the core functions of teaching, learning, research, and service.

6.2.2.2 Forms and Drivers of Internationalisation

Internationalisation in higher education takes multiple forms, encompassing both 'at-home' and 'abroad' dimensions (Knight, 2004). At-home initiatives include curriculum internationalisation, the incorporation of intercultural pedagogies, and international research collaboration. Cross-border initiatives constitute a major pillar, with programme mobility such as transnational education partnerships and people mobility being the most visible expressions.

Among these, student mobility remains the most widespread and recognised form globally, often serving as a primary indicator of an institution's or a nation's level of international engagement. This emphasis is frequently supported by deliberate national and regional policies. For example, the Southern African Development Community (SADC), through its 1997 Protocol on Education and Training, set a target for member states to have at least 5 per cent of their student population drawn from other SADC countries. Some nations, like South Africa, have significantly surpassed this target, establishing themselves as educational hubs within the region (Herman and Sehoole, 2018; Kwaramba, 2012).

6.2.2.3 Benefits and the Critical Downsides of Internationalisation

The internationalisation of higher education yields significant benefits across academic, economic, and socio-cultural dimensions. Academically, it enhances the quality of education and research by fostering diverse perspectives and facilitating knowledge exchange (Altbach and Knight, 2007; de Wit et al., 2015; Nguyen et al., 2025). Economically, it generates substantial revenue and enhances the global employability of graduates (Knight, 2004; Maringe and Carter, 2007). Socio-culturally, it promotes intercultural understanding, tolerance, and global citizenship (de Wit, 2002).

However, this process is also associated with significant negative consequences. A primary concern is the increasing commercialisation and commodification of education, where academic programmes are treated as revenue-generating products, potentially prioritising profit over quality (Knight, 2004; Altbach and Knight, 2007). This market-driven approach can lead to the homogenisation of curricula and a downgrading of quality (Stier, 2004).

Furthermore, internationalisation often exacerbates global inequalities. It can lead to a significant 'brain drain', where talented individuals from developing regions are recruited to the Global North, depleting the intellectual capital of their home countries (Crush, 2022; Tettey, 2006). This reinforces a core-periphery model, reproducing existing global inequalities (Altbach, 2004; Woldegiorgis, 2020). A growing body of critical scholarship argues that the prevailing model is inextricably linked to coloniality, perpetuating epistemic injustice by privileging Western knowledge systems and marginalising Indigenous and local knowledge frameworks (Ndlovu-Gatsheni, 2013; Mbembe, 2016). This creates a central tension for countries like Zambia, where internationalisation becomes a site of conflict between global homogenisation and the urgent project of decolonisation.

These dynamics raise practical concerns about quality assurance and the recognition of qualifications (Knight, 2004; Tamtik and Guenter, 2019). Without adequate support, the convergence of diverse student bodies can foster environments of misunderstanding and cultural insensitivity, potentially fuelling xenophobia and a perceived loss of cultural identity (Sichone, 2006; Chakraverty et al., 2022).

6.2.2.4 Internationalisation in the African Context

The internationalisation agenda in Africa faces profound challenges, which often constrain its potential benefits. Key impediments include severe resource constraints, inadequate funding, and underdeveloped infrastructure (Mbembe, 2016; Masaiti and Mwale, 2020). Furthermore, a reliance on Western paradigms perpetuates academic dependency and intellectual neo-colonialism (Jowi, 2009; Woldegiorgis, 2020). Other significant barriers encompass restrictive visa policies and a lack of comprehensive national policy frameworks (Nerad et al., 2022).

Despite these challenges, successful cases exist, with South Africa serving as a prominent

example. Its rise as the continent's epicentre for international education is the result of a deliberate and multifaceted strategy. This includes integrating internationalisation into university missions, establishing dedicated international offices, and leveraging diverse avenues of engagement, from attracting foreign students to exporting educational services (Maringe et al., 2024). This is supported by a robust academic infrastructure, including internationally recognised universities, which creates a compelling value proposition for students across the continent (Kwaramba, 2012; Sehoole and Lee, 2021). A deep commitment to regional integration, exemplified by the proactive implementation of the SADC Protocol, further fortifies this position.

However, this success has not been without its own challenges, including inadequate funding, complex visa processes, and a perceived culture of academic xenophobia (Herman and Meki- Kombe, 2019; Maringe et al., 2024). This underscores that even successful models must navigate the complex downsides outlined above.

6.2.3 Theoretical Underpinning

This study is grounded in the view of internationalisation as a strategic process that integrates global dimensions into higher education (Knight, 2004; de Wit et al., 2015). While prior research has established why Zambian institutions pursue internationalisation, this paper focuses theoretically on the question of how it is implemented in practice. It examines the translation of internationalisation policies into actionable strategies within Zambia's specific context to identify the real-world challenges, opportunities, and operational dynamics that characterise this process.

6.2.4 Methodology

This paper employed a qualitative desk-based research methodology, utilising a review and document analysis of existing literature and policy documents. The data collection involved an analysis of two primary sources: (1) institutional documents, including strategic plans, internationalisation policies, and annual reports from Zambian higher education institutions (HEIs); and (2) a review of scholarly literature, focusing on peer-reviewed journal articles, books, and reports from governmental and international organisations (e.g., UNESCO, British Council). To ensure the review's contemporaneity, the analysis prioritised documents and publications from the recent period (approximately 2019 onwards). However, the paper incorporates pivotal foundational works beyond the specified timeframe, thereby enriching the analysis with a comprehensive understanding of internationalisation's historical development, theoretical underpinnings, and enduring concepts that continue to shape the field.

While the core focus was on Zambia, the literature search was contextualised within relevant regional (Southern African Development Community - SADC) and global perspectives from the same period. Key academic databases, including ERIC, Education Source, JSTOR, and Scopus, were searched using keywords related to 'internationalisation,' 'higher education,' and 'Zambia.' The collected data were subjected to thematic analysis to identify, analyse, and report recurring patterns, key challenges, emergent opportunities, and strategic trends, ultimately informing the development of evidence-based recommendations for enhancing internationalisation in the Zambian context. While a desk-based review offered valuable insights, it was limited by its reliance on secondary sources and lack of direct engagement with stakeholders, restricting the comprehensiveness of the findings.

6.2.5 Analysis and Findings: The Zambian Internationalisation Landscape

Zambia's participation in the global academic community is growing, but its approach to internationalisation remains emergent and reactive, with limited scholarly attention. This limited approach reinforces a peripheral position and risks perpetuating dependencies,

such as brain drain and loss of intellectual capital (Masaiti and Mwale, 2020; Masaiti et al., 2021).

6.2.5.1 Beyond the Net Sender Narrative: Emerging Trends in Zambia's Academic Mobility

Empirical data consistently classify Zambia, along with many of its Southern African Development Community (SADC) partners, as a net 'sender nation' for tertiary education (Nerad et al., 2022; UNESCO, 2022). This outflow is driven by potent push-pull dynamics (Mazzarol and Soutar, 2002). Push factors from Zambia include limited domestic programme availability, perceived quality differentials, and inadequate research funding. Pull factors drawing students and faculty abroad include the superior institutional reputation, infrastructure, and more competitive salaries offered by destinations like South Africa and the Global North (Crush et al., 2012; Sehoole and Lee, 2021; Zeleza, 2022). This exodus of intellectual capital presents a significant challenge to strengthening Zambia's domestic higher education system and achieving a more balanced international academic exchange.

A closer look reveals a more complex picture. Zambia's higher education landscape is undergoing a notable shift, with emerging inward mobility trends that challenge the simplistic 'sender-only' classification. Research by Masaiti and Mwale (2020) previously highlighted the presence of international students between 2015-2019 (Table 6.1), and this trend has since accelerated. This dual reality positions Zambia as both a significant source of outbound students globally and an emerging destination for regional students.

Table 15.0: Recruitment of International Students and Staff and Joint Programmes, 2015-2019

Name of Institution	Current Total No. of Students	Current Total No. of Staff	No. of Internat-ional Students	No. of Intern-ational Staff	Country of Origin	Joint Programmes
Institution A	24,843	900	800	89	Namibia, South Africa, Cameroon, Congo, Malawi, Tanzania, Kenya, Botswana, Burundi, India, Somalia, Zimbabwe, Japan	2 active joint programmes with Zimbabwe Open University 2+2 Zambia – China Degree programmes
Institution B	14,000	400	500	60	Angola, Congo, South Africa, Zimbabwe, Malawi	3 joint programmes under the School of Engineering with other international institutions
Institution C	6,000	100	800	20	South Africa, Malawi, Zimbabwe, Tanzania, Namibia, Uganda, Kenya	Nil
Institution D	7,000	178	1,500	24	South Africa, Malawi, Zimbabwe, Tanzania, Namibia, Uganda, Kenya	2 collaborations University of KwaZulu Natal and Macro Economic Financial Management Institute of Eastern and Southern Africa (MEFMI)
Institution E	2,800	100	250	5	Angola, Congo, South Africa, Zimbabwe, India, Namibia	3 joint programmes in collaboration with University of Greenwich, University of London and Athlone Institute of Technology
Institution F	5,500	125	500	10	Kenya, Zimbabwe, Namibia, Angola, Malawi, Botswana, South Africa, and Tanzania	Joint Programmes in collaboration with University of Sunderland (B.A Business Management)

The latest data in Table 6.2 confirms 9,236 international students enrolled in Zambian universities in 2024, underscoring the country's growing appeal as a regional education hub.

Table 16.0: Number of International Students in Universities in Zambia, 2024

Name of University	International Students
UNICAF University	4,005
University of Lusaka	1,420
Gideon Robert University	972
University of Zambia	876
Copperbelt University	764
Mulungushi University	647
Texila American University	552
TOTAL	**9,236**

Source: *Higher Education Authority, 2024*

Furthermore, the origin of these students, as shown in Table 6.3, highlights Zambia's primary role within the SADC region. The top five source countries – Zimbabwe (2,647), Namibia (1,421), Lesotho (348), Eswatini (206), and South Africa (164) account for a significant portion of the international cohort, reflecting shared cultural ties, geographical proximity, and the attractiveness of Zambian qualifications within Southern Africa.

Table 17.0: Top 5 Countries with the Highest Number of International Students in Zambia, 2024

Name of Country	International Students
Zimbabwe	2,647
Namibia	1,421
Lesotho	348
Eswatini	206
South Africa	164
TOTAL (Top 5)	**4,786**

6.2.5.2 Beyond Mobility: Emerging Yet Fragmented Practices

Beyond the traditional focus on physical mobility, Zambian universities are actively pursuing a more fragmented but significant array of internationalisation strategies, as evidenced by Masaiti and Mwale's (2020) research. This broader engagement is demonstrated through widespread academic collaboration, where all six institutions studied had joint publications and international research projects, and five of the six offered joint degree programmes with foreign partners. Furthermore, all universities had embraced digital internationalisation via distance and e-learning programmes to broaden access. There is also a notable emphasis on ethical and social integration, with all institutions facilitating international students' participation in cultural life and proactively integrating refugee populations from across the region. Thus, the landscape is defined not by student exchanges but by rooted activities like research, digital learning, and campus internationalisation, forming a pragmatic and regionally-focused approach.

While macro-level analyses, such as that by Masaiti et al. (2020), effectively map the extent of internationalisation in Zambian universities, revealing widespread participation in joint publications, digital learning, and hosting international students, the study by Gondwe et al. (2023), provides a critical micro-level perspective by examining the faculty experiences that underpin these efforts, particularly concerning the Internationalisation of the Curriculum (IoC). Their study shows that while lecturers acknowledge the benefits of IoC, its implementation is severely constrained by a lack of financial support, limited international collaborations, and inadequate technological resources. This reveals a stark gap between institutional strategy and practical execution, suggesting that without addressing these foundational faculty-level barriers, the documented progress in internationalisation risks remaining superficial.

6.2.5.3 Overarching Drivers and Policy Fragmentation

Despite the emerging practices, the findings indicate that the overarching driving forces behind internationalisation in Zambia remain predominantly economic, focused on revenue generation and institutional branding. The 2024 international student data provides compelling evidence for this; the institutions with the highest international enrolments are predominantly private universities (e.g., UNICAF University, University of Lusaka, Gideon Robert University), whose operational models are heavily reliant on tuition fees. This suggests that the current growth in inbound mobility is largely market-driven. This utilitarian approach, common across much of the Global South, often side-lines the deeper academic and cultural benefits of genuine, equitable knowledge co-creation (Knight, 2012; de Wit et al., 2015; Masaiti and Mwale, 2020) and risks reducing internationalisation to a mere commodity for revenue generation, thereby exacerbating inequities rather than alleviating them.

Crucially, these efforts are severely hampered by the absence of a comprehensive and coherent national policy framework. This policy vacuum fragments institutional initiatives, limits their collective impact, and potentially worsens pre-existing inequities between well-resourced and developing institutions (Jowi, 2009; Maringe et al., 2024). The lack of a strategic national directive leaves the internationalisation agenda vulnerable to ad-hoc, market-driven pressures rather than being guided by a vision for sustainable national development.

6.2.6 Discussion: Strategic Pathways for a Transformative Approach

The central question for Zambia, therefore, is not whether it is internationalising, but how. The findings reveal a system at a crossroads, characterised by significant challenges but also tangible opportunities. To transform this process from a potential source of inequality and brain drain into a catalyst for sustainable development, the nation must enact a fundamental philosophical and practical shift. This requires moving decisively beyond reactive activities to embrace strategic, context-sensitive frameworks that prioritise

mutual benefit (Ishengoma, 2016). The analysis points to three strategic pathways forward.

6.2.7 Cultivating a Regional Education Hub through Strategic Niche Development

Zambia's strategic centrality within SADC is its greatest geopolitical advantage, a fact strongly supported by the 2024 data, which shows that the vast majority of its 9,236 international students originate from neighbouring SADC nations. Rather than competing broadly, Zambian HEIs should deliberately develop specialised, high-demand programmes in fields of inherent national strength, such as sustainable mining engineering, tropical medicine, and agricultural economics. This niche development must be consciously decolonial, actively dismantling the reliance on Western epistemological frameworks. Programmes in sustainable mining engineering, for instance, should integrate indigenous knowledge of land stewardship and critical studies on the socio-economic impacts of extractive industries. Similarly, tropical medicine research must prioritise the study of local medicinal plants and community-based health practices, rather than merely applying Western models in a new setting. The goal is to build a hub that is not only regionally relevant but also epistemically diverse, challenging the core-periphery dynamic by establishing Zambia as a centre for the production of unique, contextually sophisticated knowledge. The existing demand from the region, as evidenced by the student inflow, provides a solid foundation upon which to build this more strategic, value-added hub.

6.2.7.4 Leveraging Digital Expansion to Overcome Infrastructural Constraints

The continued growth of digital education presents a powerful and cost-effective strategy to leapfrog historical physical and infrastructural limitations. Investing in high-quality online courses, micro-credentials, and virtual exchange programmes would allow Zambian universities to dramatically extend their reach to a global learner audience. This approach serves a dual purpose: creating a potential revenue stream that aligns with current economic drivers, while also seamlessly integrating diverse international perspectives into the domestic learning experience, thus fostering a more globally engaged academic community, for both domestic and international students.

Digital platforms can be powerful tools for epistemic liberation. Rather than simply hosting Massive Open Online Courses (MOOCs) from the Global North, Zambian institutions should develop and export their own online courses and Open Educational Resources (OERs) that reflect a Zambian and African perspective on history, philosophy, sociology, and science. This digital strategy can serve to globalise Southern knowledge, countering the unidirectional flow of information.

> This digital strategy must, however, be pursued with caution. The potential for revenue generation must be balanced against the core educational mission to avoid the pure commodification of education. The primary goal should be access and quality, not just profit.

6.2.7.5 Harnessing the Diaspora for a 'Virtual Brain Gain'

Perhaps the most innovative strategy involves proactively counteracting brain drain by leveraging the extensive Zambian academic diaspora through structured 'Diaspora Knowledge Networks'. This initiative facilitates a vital 'virtual brain gain' (Tamtik and Guunter, 2019), where expatriate scholars contribute their world-class expertise through remote mentorship, collaborative research projects, and virtual guest lecturing. Formally, integrating this global talent pool into the domestic academic ecosystem injects cutting-edge knowledge and international networks directly into universities, strengthening capacity without requiring permanent physical return. This directly addresses the crippling loss of intellectual capital

identified in the findings.

6.2.7.6 A Call for Coordinated Action: Implementing the Strategies

To harness the listed opportunities, concerted action is required from all stakeholders. National policymakers must develop a coherent national internationalisation strategy that provides a clear vision beyond revenue generation, supported by a dedicated scholarship fund to attract and retain international talent and streamlined visa and accreditation processes. Meanwhile, university leaders should actively incentivise international research collaboration through funding and recognition, embed global perspectives into the core curriculum, and invest in professional international offices equipped to execute these strategic imperatives. By working together, Zambia can unlock the full potential of its internationalisation agenda.

6.2.8 Conclusion

This chapter has moved beyond established motivations to critically examine the operational realities of internationalisation in Zambian higher education, revealing a central paradox. While Zambia remains a net sender nation within the global knowledge economy, it is simultaneously emerging as a qualified regional hub, as evidenced by the enrolment of over 9,200 international students, primarily from SADC. The findings illustrate a landscape where this promising inbound mobility, alongside other emergent practices, is currently driven by reactive, economic imperatives and fragmented by the absence of a coherent national policy, risking the perpetuation of dependency and commercialisation.

The path forward, therefore, requires a fundamental shift from these ad-hoc activities to a strategic, context-sensitive framework. The demonstrated demand from the region is not merely a statistic but a strategic asset. By deliberately leveraging this existing comparative advantage, its proven regional appeal, digital potential, and academic diaspora, Zambia can decisively redefine its role. Cultivating niche academic hubs in areas of national strength, expanding digital education to serve this regional market, and formalising diaspora networks for a 'virtual brain gain' present actionable strategies to rebalance the brain drain and promote equitable, sustainable partnerships. Ultimately, the goal is to transform internationalisation from a potential source of inequality into a catalyst for academic excellence and sustainable national development. This requires concerted action from policymakers and institutional leaders to enact these strategies, enabling Zambia to evolve from a passive sender nation into an active, strategic regional hub and a generative site of decolonial knowledge production.

Suggestion for Future Research

While this study has focused on institutional challenges, future research must investigate the socio-cultural and academic challenges faced by the primary beneficiaries: the students. This will ensure that internationalisation policies are not only strategically sound but also human-centred and supportive.

REFERENCES

Altbach, P.G. (2004). 'Globalisation and the University: Myths and Realities in an Unequal World.' Tertiary Education and Management, 10(1), 3-25.

Altbach, P.G., and Knight, J. (2007). The Internalization of Higher Education: Motivations and Realities.' Journal of Studies in International Education, 11(3-4), 290-305. Campus France. (2019).

National Strategies for International Student Recruitment in Higher Education and Research.
https://ressources.campusfrance.org/publi_institu/agence_cf/notes/fr/note_57_fr.pdf.

Chakraverty, D., Lévesque, M., Qi, J., Meki-Kombe, C., and O'Carroll, C. (2022). Capacity Building Through Mobility and its Challenges. In Towards a Global Core Value System in Doctoral Education (pp. 133-170). UCL Press.

Crush, J. (2022). Losing Our Minds: Brain Drain and Academic Mobility from Southern Africa. Southern African Migration Programme.

de Wit, H., Hunter, F., Howard, L., and Egron-Polak, E. (2015). Internationalisation of Higher Education. European Parliament.

Government of Zambia. (2013). The Higher Education Act No. 4 of 2013. Lusaka: Government Printers.

Government of the Republic of Zambia (GRZ). (2006). Vision 2030: A Prosperous Middle-Income Nation by 2030. GRZ: Lusaka.

Hassan, M.K., Smith, J., and Johnson, L. (2025). Global Higher Education in the Post Pandemic Era: Challenges and Opportunities. London: Routledge.

Higher Education Authority. (2022). HEA Strategic Plan 2022-2026.

Herman, C., and Meki-Kombe, C.L. (2019). The Role of Social Networks in the Transitional Experiences of International African Doctoral Students at One University in South Africa. Higher Education Research and Development, 38(3), 508-52.

Herman, C., and Sehoole, C. (2018). Research and PhD Capacities in Sub-Saharan Africa: South Africa Report.

Heretape, R., and Escarlos, J. (2025). 'Strategic Internationalization in Developing Economies: A Framework for Implementation.' Journal of Higher Education Policy and Management, 47(1), 22-38.

Ishengoma, J. M. (2016). 'Strengthening Higher Education Capacity in Africa Through Staff Development: A Critical Analysis of Mozambique, Tanzania, and Zambia.' Journal of Higher Education in Africa, 14(1), 45-70.

Jones, E., and Killick, D. (2013). 'Graduate Attributes and the Internationalized Curriculum: Embedding a Global Outlook in Disciplinary Learning Outcomes.' Journal of Studies in International Education, 17(2), 165-182.

Jowi, J. O. (2009). Internationalization of Higher Education in Africa: Developments, Emerging Trends, Issues and Policy Implications. Higher Education Policy, 22(3), 263-281.
Knight, J. (2004). Internationalization Remodelled: Definition, Approaches, and Rationales.

Journal of Studies in International Education, 8(1), 5-31.

Kragelund, P., and Hampwaye, G. (2015). The Confucius Institute at the University of Zambia: A New Direction in the Internationalisation of African Higher Education? In Higher Education and Capacity-Building in Africa (pp. 83-104). Routledge.

Kritz, M. M. (2015). International Student Mobility and Tertiary Education Capacity in Africa. International Migration, 53(1), 29-49.

Kwaramba, S. (2012). Regional Integration in Higher Education in Southern Africa: The Case of the SADC Protocol on Education and Training [Doctoral Dissertation, University of the Witwatersrand].
Maringe, F., and Carter, S. (2007). 'International Students' Motivations for Studying in UK HE: Insights into the Choice and Decision Making of African Students.' International Journal of Educational Management, 21(6), 459-475.

Maringe, F., Chiramba, O., Banda, T., Magabane, A., Chibaya, S., and Maphosa, A. (2024). Exploring Internationalisation of Higher Education at Public Universities in South Africa: Intentions, Practices, Opportunities and Constraints. International Education Association of South Africa (IEASA) and the British Council.

Masaiti, G., and Mwale, N. (2020). 'The Drive and Nature of Internationalisation of Higher Education in Zambia.' International Journal of African Higher Education, 7(2), 43–51. https://doi.org/10.6017/ijahe.v7i2.12899.

Masaiti, G., Mwila, K., Kulyambanino, C., and Njobvu, T. (2021). Faculty Productivity in Zambian Higher Education in the Face of Internationalization: Unpacking Research, Publication and Citation at the University of Zambia. Scholarship of Teaching and Learning in the South, 5(1), 66-86.

Masaiti, G., and Simuyaba, E. (2018). University Education in Zambia in the Face of Austerity: History, Trends and Financing. In G. Masaiti (Ed.), Education in Zambia at Fifty Years of Independence and Beyond: History, Current Status and Contemporary Issues (pp. 67-89). UNZA Press.

Mbembe, A. J. (2016). Decolonizing the University: New Directions. Arts and Humanities in Higher Education, 15(1), 29-45.

Mazzarol, T., and Soutar, G. N. (2002). "Push-pull' Factors Influencing International Student Destination Choice. International Journal of Educational Management, 16(2), 82–90.

McMahon, M. E. (1992). Higher Education in a World Market: A Historical Look at the Global Context of International Study. Higher Education, 24(4), 465-482.

Ministry of Higher Education. (2019). Higher Education Policy. Lusaka: Government Printers.

CHAPTER 7 : **POLICY IMPLICATIONS AND FUTURE STRATEGIC DIRECTIONS**

7.1 Policy Implications

The 2024 analysis of Zambia's higher education system demonstrates that, after sixty years, significant progress has been made in institutional expansion, enrolment growth, diversification of academic programmes, and widening access to learning opportunities. The sub-sector contributes meaningfully to human capital development, economic growth, and social transformation. Improvements in gender parity, private sector engagement, and alignment of higher education with national development priorities reflect positive policy outcomes over time. However, persistent challenges highlight critical implications for policy and strategic planning. These include disparities in access for learners from rural and low-income backgrounds and persons with disabilities, uneven institutional capacity, limited research and innovation outputs, and slow adoption of digital technologies needed for the Fourth Industrial Revolution. Globalisation further emphasises the need for international collaboration, mobility, and benchmarking, as Zambia's engagement in the global higher education space remains constrained.

The findings imply that the Higher Education Authority and other stakeholders must not only address immediate operational challenges but also adopt a forward-looking approach to policy formulation. This requires building resilience, promoting inclusivity, enhancing quality, and ensuring international competitiveness, while aligning higher education outcomes with the socio-economic aspirations of the nation.

7.2 Future Strategic Directions

Based on the evidence and trends identified in this report, the following strategic directions and their specific measures are critical for the future of higher education in Zambia:

a) Strengthen Governance and System Coordination

i. HEA to enhance oversight mechanisms for quality assurance and institutional compliance.

ii. HEA and HEIs to improve data management and reporting systems to support evidence-based decision-making.

iii. HEIs to enhance resource mobilisation.

iv. HEA and HEIs to enforce governance reforms that promote transparency, accountability, and efficient resource utilisation.

v. Strengthen sustainable financing models.

b) Expand and Equitably Distribute Access

i. HEIs to implement mentorship programmes for female students and staff, particularly in research and science disciplines.

ii. HEIs to enhance access, support and targeted programmes for disadvantaged groups, including persons with disabilities and learners from rural and low-income communities.

iii. HEA and HEIs to support expansion and accessibility of open, distance, and blended learning modalities.

iv. HEA and HEIs to ensure infrastructure growth aligns with enrolment expansion to prevent overcrowding.

c) Improve Quality of Teaching, Learning, and Academic Staffing

i. HEIs to invest in staff development, with a focus on digital skills and Fourth Industrial Revolution (4IR) pedagogies, including the effective use of Artificial Intelligence.

ii. HEIs to invest in tools that support teaching and learning.

iii. HEIs to strengthen curriculum relevance through integration of industry needs, entrepreneurship, innovation, and applied research.

iv. HEIs to incentivise recruitment and retention of qualified faculty.

d) Enhance Research, Innovation, and Knowledge Production

i. HEIs to establish competitive research funding schemes aligned with national socio-economic priorities.

ii. HEIs to strengthen industry linkages to promote technology transfer, innovation, and employability.

iii. HEIs to promote collaborative research networks locally and internationally.

e) Promote Internationalisation and Global Competitiveness

i. HEIs to expand regional and global mobility programmes for students and academic staff.

ii. HEIs to pursue international accreditation and strategic partnerships to enhance global visibility.

iii. HEIs to facilitate cross-border education through supportive regulatory frameworks.

7.3 Strategic Outlook

The Higher Education Authority, working in partnership with key stakeholders, should maintain oversight of the implementation of these strategic directions to promote ongoing improvement. Continued dedication to quality enhancement and innovation will strengthen Zambia's higher education system, enabling it to deliver a transformative impact in the years ahead. This proactive approach will equip the sub-sector to adapt to technological progress, shifting labour market demands, and global trends in higher education, cementing its position as both a foundation of national development and a leading regional hub for higher learning.

HIGHER EDUCATION AUTHORITY

Our Mandate

Is to regulate and monitor standards in HEIs in order to ensure quality services and contribute to the enhancement of human capital and accelerated national development.



Follow us
@HEAZambia on:

#HEAZambia
#HigherEducationZambia

www.hea.org.zm

HIGHER EDUCATION AUTHORITY



Follow us

@HEAZambia on:

#HEAZambia
#HigherEducationZambia

2nd Floor, Engineering House Stand No. 2374,
Kelvin Siwale Road
P.O. Box 50795, Ridgeway, Lusaka
+260 211 227 084