

**GRADUATE SCHOOL GOVERNANCE STRUCTURES AND POST  
GRADUATE STUDENTS' COMPLETION RATES IN PUBLIC  
UNIVERSITIES, KENYA**

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**A Thesis Submitted in Partial Fulfilment of the Requirements for the Award of  
Degree in Doctor of Philosophy in Educational Management and Policy Studies  
of Masinde Muliro University of Science and Technology**

**June, 2025**

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## **DEDICATION**

This work is dedicated to my father, Jamin, my mother, Pamela, my sisters, Celian and Centrine, and my brother, Ian, for their unwavering financial and moral support throughout my studies.

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## ABSTRACT

Graduate school governance structures play a critical role in shaping the academic progression and successful completion of postgraduate studies. However, public universities in Kenya continue to face persistent challenges related to delayed completion and low completion rates among postgraduate students. This study sought to examine the role of graduate school governance structures in influencing the completion rates of postgraduate students in public universities in Kenya. The study adopted a mixed-methods research design. Data were collected using questionnaires, interviews, and document analysis guides. The target population included 22,461 postgraduate students, 386 Chairpersons of Departments, 300 lecturers, 100 deans/directors, 36 registrars of academic and student affairs, and 36 student representatives, totaling 23,219 respondents. A sample size of 435 was determined using Krejcie and Morgan's formula. Universities were selected through simple random sampling, and a pilot study was conducted in two public universities to assess the reliability and validity of the instruments using the Test-Retest method. Quantitative data were analyzed using descriptive statistics, including frequencies, percentages, and means, while qualitative data were analyzed thematically. Trend and time series analysis techniques were applied to examine data over the period from 2015 to 2024. The findings revealed a 90% increase in postgraduate enrollment between 2015 and 2024, alongside a shift in academic discipline preference from humanities (decreasing from 30% to 20%) to sciences (increasing from 40% to 55%). Retention rates rose from 75% to an estimated 87%, attributed to enhanced academic services and institutional resilience during the COVID-19 pandemic. Completion rates, expressed as a percentage of enrolled students, increased from 66.7% to 76.3%. Gender disparities narrowed, suggesting progress toward equity in postgraduate education. The study concludes that effective graduate school governance structures significantly contribute to improved completion rates. It recommends the adoption of flexible learning modes such as online learning, the provision of scholarships, and the development of structured mentorship programs to enhance timely completion among postgraduate students in public universities.

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## **ABBREVIATIONS AND ACRONYM**

<b>APA</b>	:	American Psychological Association
<b>ASAs</b>	:	Associate School Administrators
<b>AYC</b>	:	Average years per completion
<b>CHE</b>	:	Council on Higher Education
<b>CODs</b>	:	Chairs of Departments
<b>CUE</b>	:	Commission for University Education
<b>GDR</b>	:	Grade Dropout Rate
<b>DHET</b>	:	Department of Higher Education and Training
<b>GRR</b>	:	Grade Repeater Rate
<b>KNUT</b>	:	Kenya National Union of Teachers
<b>MoES</b>	:	Ministry of Education and Sports
<b>MMUST</b>	:	Masinde Muliro Universities of Science and Technology
<b>NACOSTI</b>	:	National Commission for Science and Technology
<b>NCES</b>	:	National Center for Education Statistics
<b>USA</b>	:	United States of America

## **OPERATIONAL DEFINITION OF TERMS**

### **Academic Policies**

Academic policies are formal rules and regulations established by educational institutions to govern aspects such as admissions, academic performance, and graduation requirements. In this study, academic policies refer specifically to the rules and regulations set by graduate schools that guide student performance, program progression, and requirements for graduation.

### **Cohort**

A cohort is commonly defined as a group of individuals who share a common characteristic or experience within a defined period. In this study, a cohort refers to a group of students who enrolled in a university at the same time and underwent similar learning experiences.

### **Cohort Wastage**

Cohort wastage generally describes the proportion of students within a cohort who fail to complete their academic program. In this study, it refers to students who were initially enrolled but cannot be accounted for after identifying survivors. Wastage was assessed in terms of dropout rates, repetition rates, and overall attrition.

### **Dropout**

A dropout is typically defined as a student who withdraws from a program before completion without transferring to another institution. In this study, dropout refers to graduate students who prematurely discontinue their academic programs.

### **Graduate School**

Graduate schools are higher education institutions that offer advanced academic programs beyond the undergraduate level, including masters, doctoral, and

professional degrees. This study defines graduate school as a professional institution providing specialized academic training beyond the undergraduate degree.

### **Governance Structures**

Governance structures are the formal frameworks, systems, and decision-making mechanisms guiding the management and oversight of institutions. In this study, governance structures refer to the frameworks and processes that guide the operation and management of graduate schools and universities, ensuring effective administration and accountability.

### **Graduate Students**

Graduate students are individuals pursuing education beyond the undergraduate level to gain specialized knowledge in a specific field. In this study, graduate students refer to those enrolled in master's or doctoral programs in public universities.

### **Postgraduate Students' Completion Rate**

Completion rate is the percentage of students who successfully finish their academic programs within the designated time frame. In this study, it refers to the proportion of postgraduate students who complete their programs within the expected duration, usually measured in years.

### **Public Universities**

Public universities are institutions established and funded by government entities to provide accessible education to a wide population. In this study, public universities refer to government-funded higher education institutions offering graduate programs in Kenya.

**Retention Strategies**

Retention strategies involve institutional practices designed to keep students enrolled through to program completion. In this study, retention strategies refer to measures implemented by universities to ensure graduate students remain enrolled until they complete their degrees.

**Survivor**

Survivors in education research are students who progress from one academic level to the next without dropping out. In this study, a survivor is a student who successfully advances from one academic year or cycle to the next.

**Time Series**

Time series analysis in education often involves tracking trends and changes over time. In this study, time series refers to the movement and progression of students from one academic grade or year to another within the education system.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background to the Study

Governance structures significantly shape postgraduate students' completion rates by influencing administrative efficiency, quality of supervision, institutional support, and policy implementation. Globally, institutions vary in how these structures are implemented, which in turn affects academic progression and completion outcomes. In the United States of America, institutional governance has been shown to impact postgraduate education through policies, administrative frameworks, and student support systems. Garcia and Hernandez (2020), in their study of Latin American public universities, found that institutions with centralized governance structures achieved higher postgraduate completion rates. These institutions benefitted from streamlined administrative processes and enhanced student support services. Conversely, universities with fragmented governance structures often struggled to provide consistent academic guidance, resulting in lower completion rates.

In Malaysia, multiple factors tied to governance decisions—such as faculty mentorship, financial assistance, curriculum structure, and inclusive institutional policies—play a pivotal role in influencing postgraduate student outcomes. According to Yusof (2020), key determinants include faculty mentorship, financial assistance, curriculum structure, institutional support services, and inclusive policies. These elements are all closely tied to governance decisions within universities, emphasizing the need for well-structured oversight.

Across Africa, postgraduate education is viewed as a vital tool for socio-economic advancement. However, completion rates remain alarmingly low. Eze (2020) highlights that issues such as weak supervision, inadequate funding, and ineffective governance mechanisms are prevalent challenges across African public universities. These findings highlight the need for institutional governance that prioritizes student progression and academic success.

In South Africa, the governance and leadership structures in higher education institutions have been criticized for lacking inclusivity and transformation. Adeyemo (2019) notes that the underrepresentation of Black and female academics in leadership roles poses significant barriers to effective governance. Additionally, Mouton et al. (2020) observed that supervision quality and progress monitoring are inconsistent, often leading to delays in feedback and extended program durations.

In Nigeria, postgraduate completion rates are similarly affected by governance deficiencies. Ajayi, Oyeleke, and Okunola (2020) and Edem and Bassey (2019) report that poor leadership, limited funding, and inefficient administrative structures are persistent problems. These governance challenges directly contribute to prolonged graduate study timelines and student attrition.

Uganda's graduate schools operate under university senates, deans' committees, and postgraduate boards. Despite these structures, postgraduate completion remains low. Nakabugo et al. (2020) identify inconsistent supervision, excessive faculty workloads, and bureaucratic inefficiencies as key governance-related issues. Although Makerere University has introduced supervisory training and mandatory progress assessments, implementation challenges persist.

In Kenya, the demand for graduate education has increased considerably, driven by the need for skilled professionals in the labor market. Mungania and Mbugua (2017) emphasize that public universities are central to this expansion. However, governance structures have not consistently supported high completion rates. Kariuki and Mwangi (2019) found that participatory governance models correlated with improved supervision and student motivation, resulting in higher completion rates. In contrast, institutions with ambiguous governance frameworks face difficulties in monitoring student progress and offering adequate academic support.

The implications of low postgraduate completion rates are far-reaching. They limit the production of highly skilled professionals, reduce research output, and negatively impact university rankings and funding opportunities. These trends highlight an urgent need to examine the governance structures in Kenya's public universities, particularly within graduate schools, to determine the extent to which they influence postgraduate students' ability to complete their programs in a timely manner.”

Despite growing enrollment, postgraduate completion rates in Kenya remain low. Oyaró, Bitange, and Makori (2020) attribute this to insufficient faculty mentorship, delayed feedback, and lack of clear supervisory expectations. These gaps often lead to student frustration and eventual disengagement. Administrative inefficiencies, such as lengthy bureaucratic processes and unclear program requirements, also impede academic progression (Njenga and Mukasa, 2019). A study by Mwangi and Nyabwari (2019) revealed that completion rates vary across disciplines, necessitating tailored support services. According to the Commission for University Education (CUE, 2019), PhD programs suffer particularly low completion rates compared to master's programs. This disparity calls for further examination of governance practices at different academic levels. Mwangi and Mutisya (2017) cite inadequate funding,

limited research resources, and lack of mentorship as critical barriers to timely program completion. Similarly, the Kenya National Union of Teachers (KNUT, 2018) reported that socio-economic constraints, including financial pressures and family obligations, significantly influence students' ability to complete their studies.

The consequences of low postgraduate completion rates in Kenya are profound. They hinder the production of highly skilled professionals, slow research output, and negatively affect institutional reputations and rankings. Genthe (2022) emphasizes that postgraduate completion rates are increasingly viewed as indicators of institutional effectiveness. They influence funding opportunities, accreditation, and the ability to attract new students. This study, therefore, aimed to investigate graduate school governance structures and postgraduate students' completion rates in public universities in Kenya.

## **1.2 Purpose of the Study**

The main purpose of the study was to examine the relationship of graduate school governance structures on the completion rates of postgraduate students in public universities in Kenya.

## **1.3 Statement of the Problem**

Postgraduate student completion rate in public universities in Kenya has remained a challenge, with implications for both individual students and the broader national development agenda. Graduate programs are essential in producing highly skilled professionals, including researchers whose contributions are crucial for the country's socio-economic growth. However, low completion rates hinder the timely graduation of these individuals, thereby slowing the achievement of national goals outlined in Kenya's Vision 2030 (Haushofer, 2017). While policies by the State Department of

University Education aim to produce at least 1,000 doctoral graduates annually, the numbers have remained insufficient to meet the demands of the job market, posing a challenge for the realization of Kenya's Vision 2030 and other development initiatives (Serge, 2021).

Governance structures within universities play a critical role in shaping the academic environment and determining student outcomes. Institutional policies, decision-making processes, leadership frameworks and resource allocation mechanisms significantly impact student engagement and academic success. This raises the question: do governance structures contribute to delays in postgraduate program graduation? In the context of Kenya's Vision 2030 and the African development Agenda 2063, the delayed completion of postgraduate students further impedes the development of skilled professionals needed in the workforce.

The researcher, therefore, aims to investigate why some universities take longer timelines than others to ensure timely postgraduate completion, potentially compromising national development expectations. It is important to examine whether governance structures, policies, or both contribute to these delays. For instance, are universities adhering to timelines for postgraduate programs as stipulated in official policies and to what extent have these policies been successfully implemented? Additionally, it is essential to acknowledge that many factors contribute to the completion rates of postgraduate students. These include the quality of supervision, administrative support, faculty mentorship and institutional resource allocation.

The Commission of University Education in Kenya has set a policy aimed at producing at least 1,000 doctoral graduates annually to meet the demands of the country's Vision 2030 and broader development goals. Masters program do take two years to

completion while Phd program takes three years to completion. However, this target has not been consistently achieved, raising questions about the effectiveness of the policy. While the policy exists, its implementation has been met with challenges that affect its success. The extent to which universities adhere to the timelines for postgraduate programs remains unclear and factors such as inadequate supervision, insufficient funding and administrative inefficiencies often lead to delays in student graduation. Moreover, some universities have introduced penalties for students who exceed the prescribed duration of study, yet the impact of these policies on timely completion remains debatable. It is crucial to examine the reasons behind the failure or success of these policies and assess their real-world impact on improving postgraduate completion rate

The study proposes solutions for improving postgraduate Graduation rates, offering recommendations to university administrators and policymakers on how to enhance governance structures, streamline academic processes, and create a more supportive environment for postgraduate students. This, in turn, will contribute to improving Completion rates and ensuring alignment with national develop

#### **1.4 Objectives of the Study**

The study was guided by the following objectives:

- i. To analyze the trends in postgraduate student enrollment in public universities in Kenya from 2015 to 2024.
- ii. To assess postgraduate students' retention and survival patterns as indicators of completion rates in public universities in Kenya between 2015 and 2024.
- iii. To evaluate the actual completion rates of postgraduate students from 2015 to 2024 in public universities in Kenya.

- iv. To determine the relationship between postgraduate policy implementation and students' program completion in public universities in Kenya.
- v. To examine the factors influencing governance structures of postgraduate students' graduation in public universities in Kenya.

### **1.5 Research Questions**

The study was guided by following research questions

- i. What have been the trends in postgraduate student enrollment in public universities in Kenya from 2015 to 2024?
- ii. What are the retention and survival patterns of postgraduate students in public universities in Kenya during the period 2015–2024?
- iii. What are the completion rates of postgraduate students in public universities in Kenya from 2015 to 2024?
- iv. What is the relationship between the implementation of postgraduate policies and students' program completion rates in public universities in Kenya?
- v. Are there factors influencing governance structures of postgraduate students' completion rates in public universities in Kenya.?

### **1.6 Justification of the Study**

The study on graduate school governance structures and postgraduate students' completion rates in public universities in Kenya is critical due to the substantial role higher education plays in national development. In Kenya, as in many other countries, universities serve as vital centers for research, innovation, and the development of human capital. A well-functioning graduate school system is key to ensuring that institutions produce a highly skilled and knowledgeable workforce capable of addressing the socio-economic challenges the country faces (Altbach *et al.*, 2009).

Postgraduate education, in particular, is central to the production of advanced knowledge and expertise, which is vital for the country's progress in areas such as health, technology, education, and governance. With a rapidly growing demand for skilled professionals in various sectors, it is essential to assess the efficiency of graduate school governance structures in supporting students through to completion (Scott, 2015). Effective governance ensures that students receive adequate support and resources to successfully navigate their programs and contribute to the country's intellectual and professional workforce.

There has been growing concern about the quality of higher education in Kenya, especially in relation to postgraduate programs. In recent years, reports have highlighted that many institutions fail to equip graduates with the necessary skills and competencies to thrive in the labor market (Mutula & Mostert, 2010). Graduates often face difficulties in securing meaningful employment due to perceived gaps in their practical skills and the application of theoretical knowledge. This issue has been compounded by systemic challenges in universities, such as inadequate research funding, insufficient supervision, and bureaucratic inefficiencies, which can negatively impact students' academic progress and completion rates (Mugenda, 2015). As a result, there is a growing need to understand how governance structures, policies, and institutional practices influence the retention, survival, and completion of postgraduate students in Kenya's public universities.

This study aims to address these concerns by evaluating the governance mechanisms that influence postgraduate education. Understanding these dynamics will be pivotal in identifying barriers to completion, improving student retention, and enhancing the overall quality of graduate education in Kenya (Sifuna, 2010). Moreover, by examining the relationship between governance structures and completion rates, the

study will provide insights that could guide policymakers and university administrators in reforming higher education to better align with national development goals and global educational standards.

### **1.7 Significance of the Study**

This study on graduate school governance structures and postgraduate students' completion rates in public universities in Kenya holds significance for a variety of stakeholders, including policymakers, university administrators, academic staff, postgraduate students, and future researchers.

- **For Policymakers**

The findings will provide empirical evidence to inform education policy formulation and reform, particularly in relation to strengthening governance structures in graduate schools. This will support the development of more effective oversight frameworks that ensure accountability, improved supervision systems, and timely student completion across public universities.

- **For University Administrators and Management**

The study will help identify gaps and inefficiencies in current governance structures affecting postgraduate completion. By pinpointing specific institutional challenges such as poor supervision, delayed feedback, and limited academic support the study will offer practical recommendations for improving administrative frameworks, mentorship systems, and resource allocation. This will foster a more enabling academic environment.

- **For Academic Staff and Supervisors**

Insights from the study will underscore the importance of clear supervisory expectations, timely feedback, and structured mentorship programs. This could inform

capacity-building initiatives to enhance supervision quality and ultimately improve postgraduate throughput.

- **For Postgraduate Students**

Students will benefit indirectly from enhanced governance and support systems. By identifying factors that affect completion rates, the study may lead to interventions that reduce program delays, improve student welfare, and increase access to financial and academic support services.

- **For Scholars and Researchers**

The study will contribute to the growing body of literature on governance and higher education in the Kenyan context. It offers a basis for future studies and comparative research on postgraduate education policy, implementation practices, and institutional performance.

- **For Global and Regional Benchmarking**

The findings may also enable universities in Kenya to benchmark their governance practices and student completion rates against regional and global best practices. This can help institutions remain competitive, attract funding, and improve international rankings.

## **1.8 Assumptions of the Study**

This study was conducted based on the following assumptions:

- It was assumed that the respondents (university administrators, faculty members, and postgraduate students) provided honest, accurate, and unbiased information regarding governance structures and graduation rates.

- The study assumed that public universities in Kenya maintained accurate and up-to-date records related to postgraduate enrolment, retention, and graduation rates, and that this data was accessible for analysis.
- It was assumed that all public universities in Kenya have identifiable and operational governance structures that influence postgraduate education, including relevant policies, supervisory frameworks, and administrative mechanisms.
- The study assumed that there exists a measurable relationship between graduate school governance structures and the rates of postgraduate students' completion in public universities.
- It was assumed that while universities may differ in structure and resources, there is a general effort toward implementing national policies governing postgraduate education in a relatively consistent manner across public institutions.

### **1.9 Scope of the Study**

This study focuses on graduate school governance structures on postgraduate students' completion rates in public universities in Kenya. The study was limited to the 35 public universities in Kenya that offer postgraduate programs. It excludes private universities and foreign institutions operating locally. The independent variable was graduate school governance structures, which includes policy frameworks, administrative processes, supervisory mechanisms, funding support, and institutional. The dependent variable was postgraduate students' completion rates, measured through enrollment trends, retention, survival, and graduation data for master's and PhD programs. The study covered a ten-year period from 2015 to 2024, which provides a longitudinal view of trends and changes in governance and student completion patterns. The study

targeted university stakeholders involved in postgraduate education, specifically Chairs of Departments (CODs), Assistant Student Administrators (ASAs), and postgraduate students currently enrolled or who graduated during the study period.

### **1.10 Limitations of the Study**

The study was limited by the following factors:

- i. The study on Graduate School Governance Structures and Postgraduate Students' Completion rates in Public Universities in Kenya, the findings may not be generalized and applicable to private universities or universities in other countries with different governance structures and educational systems (Mok, 2020). The study hence recommended similar study to done in private universities and in other countries to make generalization possible (Varghese, 2016).
- ii. External factors beyond the scope of the study, such as economic conditions, societal changes and political instability influenced post graduate students completion rate in ways that cannot be fully accounted for in the analysis (Mohamedbhai, 2021).
- iii. In some instances, universities did not have up-to-date records on enrollments and survival rates. To overcome this limitation, a large sample size was utilized across all public universities (McCowan, 2020).

### **1.11 Theoretical Framework**

This study was anchored on the System Theory, which provides a comprehensive perspective for analyzing the governance structures of graduate schools and their influence on postgraduate students' completion rates in public universities in Kenya.

### **1.11.1 Systems Theory**

Systems Theory, originally developed by Ludwig von Bertalanffy in the 1950s, provides a comprehensive framework for analyzing complex organizations by viewing them as systems composed of interconnected and interdependent parts. Each part, or subsystem, contributes to the functioning of the whole. In this study, Systems Theory is used to understand how various components of graduate school governance work together to influence postgraduate students' completion rates in public universities in Kenya.

At its core, Systems Theory emphasizes several key components. These include subsystems, which are the smaller units within an organization (such as academic departments, financial aid offices and administrative divisions); boundaries, which define what is internal or external to the system; hierarchy, representing the structure and levels of authority within the system and interdependence which highlights that changes in one subsystem inevitably affect the others. Additionally, feedback mechanisms allow for continuous evaluation and adaptation of processes to meet organizational goals.

The relevance of Systems Theory to this study lies in its ability to offer a holistic view of how governance structures within graduate schools function. For example, factors such as thesis supervision, funding availability, institutional policies and administrative efficiency do not operate in isolation. Rather, they form an interrelated system where the effectiveness of each component directly impacts the others. A breakdown in supervision quality, delays in thesis approvals or inadequate financial support can disrupt the system and lead to extended study periods or student attrition. Conversely, strengthening one element, such as improving mentorship or increasing

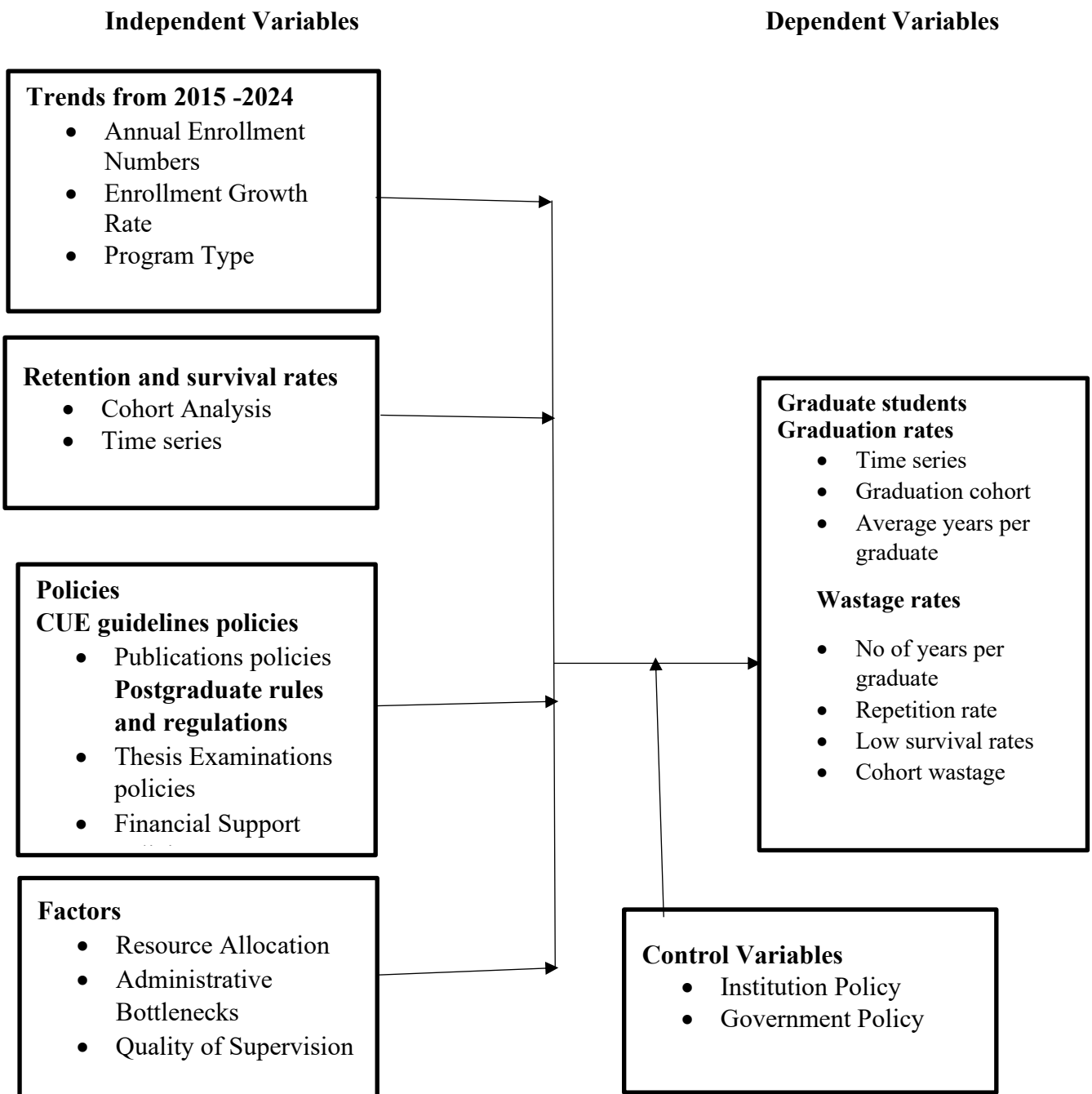
financial aid, can enhance the entire system's ability to support timely student completion.

This theoretical framework also supports the need for adaptability and responsiveness within governance structures. Drawing on the work of Peter Senge (1990), who introduced the concept of the learning organization, Systems Theory encourages institutions to foster shared vision, team learning, and continuous improvement. These elements are essential for graduate schools to remain responsive to student needs and to changing academic environments. For example, by institutionalizing regular feedback mechanisms and using data to monitor student progression, universities can identify bottlenecks in their governance systems and make evidence-based adjustments.

Therefore, Systems Theory is particularly applicable to this study as it captures the dynamic and interconnected nature of governance in graduate education. It enables a structured analysis of how subsystems within universities contribute to or hinder postgraduate students' progression and completion. The theory underscores the importance of designing governance structures that are integrated, data-informed and student-centered, thereby fostering higher retention and completion rates in public universities in Kenya.

### **1.12 Conceptual Framework**

This study sought to establish the relationship between graduate school governance structures and post graduate students' completion rates in public universities, Kenya using a conceptual framework where graduate school governance is itemized as independent variables and completion rate of students as a dependent variable, as shown in figure 1.1.



**Figure 1.1 Conceptual Framework**

Source: Clinton (2023)

The conceptual framework for this study on graduate school governance structures and postgraduate students' completion rates in public universities in Kenya indicates that the relationship between various independent variables and the dependent variables, which is postgraduate students' completion rates. It focuses on key aspects of governance structures and how they shape the experiences and outcomes of

postgraduate students. The independent variables are categorized into trends, retention and survival rates, relationships and challenges which collectively influence completion rates.

From the figure 1.1 above, the trends from the year 2015 to the year 2024 encompass annual enrollment numbers, enrollment growth rates, and program types. Annual enrollment numbers reflect the demand for postgraduate programmes. Nevertheless, it should be noted that, an increase in enrollment can strain governance systems if resources are insufficient. The enrollment growth rate highlights the pace at which student numbers are increasing. This eventuality may have the potential to expose gaps in governance, such as the need for additional academic or administrative resources. Program types, such as full-time, part-time, or online learning, also require tailored governance strategies to ensure students in different modes of learning receive adequate support.

Furthermore, retention and survival rates, includes cohort analysis, time-to-degree, and completion rates. Cohort analysis examines the progression of specific groups of students, identifying patterns that indicate success or failure in governance structures. Time-to-degree measures the effectiveness of graduate school governance structures in facilitating timely completion of programs. Delays often point to issues such as poor supervision or administrative inefficiencies. Completion rates, on the other hand, highlight how many students drop out and are often linked to challenges such as inadequate academic and emotional support or financial difficulties.

The framework also considers the relationship variables, which include the policy framework, accessibility of support services, and financial support. A robust policy framework ensures that governance structures are transparent and effective in

managing postgraduate programs. Accessibility of support services, such as counseling, career guidance, and academic mentorship, is critical for student success. Financial support is another crucial factor, as financial challenges are a leading cause of dropout rates. Scholarships, grants, and flexible funding policies are essential to help students complete their studies.

The challenges faced in governance structures are categorized into resource allocation, administrative bottlenecks, and the quality of supervision. Adequate resource allocation ensures students have access to facilities, learning materials, and qualified supervisors. Administrative bottlenecks, such as delays in thesis approvals or course registration, hinder students' progress and increase their time to degree completion. Quality supervision, which involves consistent and constructive guidance, is a cornerstone of successful postgraduate education.

The dependent variable, postgraduate students' completion rates, is measured through several dimensions, including time to degree completion, access to student support services, and career trajectories. Effective governance structures ensure that students complete their programs within the stipulated time, have access to essential support systems, and are prepared for successful career paths upon graduation.

The interconnectedness of these variables demonstrates how graduate school governance structures influence the academic journey of postgraduate students. For instance, governance policies affect resource allocation and supervision quality, which directly impact students' retention and progression. Similarly, administrative efficiency influences completion rates and ensures smooth transitions through various stages of the program. This conceptual framework provides a comprehensive

understanding of the governance factors critical to improving postgraduate students' completion rates in public universities in Kenya.

### **1.13 Chapter Summary**

Chapter One provides an introduction to the study, outlining the background, problem statement, research objectives, significance, and scope. The chapter begins by highlighting the increasing demand for postgraduate education in Kenya and the critical role that governance structures play in influencing students' completion rates. Despite rising enrollment numbers, many students face challenges completing their programs on time, raising concerns about the effectiveness of governance policies and institutional support systems.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The literature review presents existing research, and scholarly discussions related to graduate school governance structures and postgraduate students' completion rates in public universities in Kenya.

##### **2.2.1 Trends between post graduate students enrolment rates in public**

###### **Universities from the year 2015 to the year 2024**

According to UNESCO (2021), postgraduate education plays a crucial role in enhancing research, innovation, and professional development worldwide. Over the last decade, enrollment in postgraduate programs has seen varying trends across different regions due to economic shifts, policy changes, and global disruptions such as the COVID-19 pandemic. The global landscape of postgraduate enrollment has experienced significant changes, driven by factors such as increased demand for advanced qualifications, expansion of online learning, and international student mobility (UNESCO,2021). According to UNESCO (2021), global postgraduate enrollment rose by an average of 4.5% annually from 2015 to 2019, before experiencing fluctuations during the COVID-19 pandemic. The OECD (2022) reported that postgraduate student numbers across member countries increased from 12 million in 2015 to approximately 15 million in 2024.

**Table 2.1: Global Postgraduate Enrollment Trends (2015-2024)**

<b>Year</b>	<b>Enrollment (Million)</b>
<b>2015</b>	12.0
<b>2016</b>	12.5
<b>2017</b>	13.0
<b>2018</b>	13.7
<b>2019</b>	14.5
<b>2020</b>	14.2
<b>2021</b>	14.6
<b>2022</b>	14.8
<b>2023</b>	15.0
<b>2024</b>	15.2

(Source: OECD, 2022; UNESCO, 2021).

The global enrollment of postgraduate students has exhibited a steady upward trend from 2015 to 2024, as illustrated in Table 2.1. The enrollment figures indicate a significant increase from 12.0 million in 2015 to 15.2 million in 2024, reflecting a growing demand for advanced education worldwide. This trend aligns with the increasing emphasis on higher education as a driver of economic development, research innovation, and specialized workforce skills (UNESCO, 2021; OECD, 2022). Between 2015 and 2019, postgraduate enrollment experienced consistent annual growth, rising from 12.0 million to 14.5 million. This growth can be attributed to factors such as government policies promoting graduate education, expansion of university programs, and rising global competition for highly skilled labor (Altbach & de Wit, 2020). However, in 2020, enrollment declined slightly to 14.2 million, likely due to disruptions caused by the COVID-19 pandemic, which affected university operations and students' ability to enroll in programs (Marginson, 2021). The subsequent rebound in 2021 (14.6 million) and continued growth through 2024 (15.2 million) suggest a recovery phase, driven by increased investments in online learning, flexible education models, and international student mobility programs (Knight, 2022).

Globally, variations in postgraduate enrollment trends was observed across different regions. In developed economies such as the United States, the United Kingdom, and Germany, enrollment rates have remained stable due to strong research funding and institutional support (OECD, 2022). Meanwhile, developing regions such as Africa and South Asia have reported rising enrollment figures, spurred by government initiatives to expand higher education access (World Bank, 2023).

For instance, China has significantly increased its postgraduate student population through policies that promote research and innovation. Between 2015 and 2024, China's postgraduate enrollment grew by approximately 30%, making it one of the fastest-growing contributors to global figures (Zhao & Mok, 2023). Similarly, India's postgraduate enrollment has risen due to government-led initiatives such as the National Education Policy (NEP) 2020, which encourages higher education expansion (Sharma, 2023).

Postgraduate education has experienced significant growth, driven by increased demand for specialized skills, research, and innovation. According to UNESCO (2023), global postgraduate enrollments have increased by an average of 6% annually, with notable growth in STEM (Science, Technology, Engineering, and Mathematics) fields. Countries such as the United States, China, and Germany have invested heavily in postgraduate education through research funding, scholarships, and policy reforms. However, challenges such as high tuition fees, research funding gaps, and student completion remain prevalent (OECD, 2022).

According to the UNESCO Institute for Statistics (2020), the number of students enrolled in Master's and doctoral programs has grown significantly in developed nations such as the United States, the United Kingdom, and China. In the United

States., for instance, postgraduate enrollment increased by 8% from 2015 to 2020, largely due to expanded online learning opportunities and increased funding for research programs (National Center for Education Statistics, 2021). Similarly, in China, postgraduate enrollment rose due to government policies encouraging advanced education to support industrial and technological growth (Zhao & Hu, 2021).

Despite this growth, disparities exist in enrollment rates between developed and developing countries. While countries in Europe and North America have robust postgraduate education systems, many developing nations struggle with inadequate funding, high dropout rates, and governance challenges (Altbach *et al.*, 2019). These global trends set the stage for examining regional and country-specific dynamics in postgraduate enrollment.

Studies by the National Center for Education Statistics (NCES) have documented trends in postgraduate enrollment rates in the USA over recent years (NCES, 2022). These studies have highlighted both steady growth and fluctuations in postgraduate enrollment numbers, influenced by factors such as demographic shifts, economic conditions, and policy changes.

Research conducted by Hossler and Bontrager (2021) explored variations in postgraduate enrollment trends among public universities across different states and regions. Their findings suggest that while some institutions have experienced consistent growth in postgraduate enrollments, others have witnessed fluctuations or declines over time. Factors contributing to these variations include changes in program offerings, marketing strategies, and regional demographic shifts.

Several scholars have examined the factors influencing postgraduate enrollment trends. Altbach and de Wit (2020) argue that the expansion of postgraduate education is driven by the knowledge economy's demand for highly skilled professionals. Knight (2022) highlights the role of internationalization in increasing enrollment, as universities attract students from different regions through scholarship programs and research collaborations. Conversely, Marginson (2021) warns that rising tuition fees and financial burdens on students could slow enrollment growth in certain regions. Therefore, the researcher concurs with the global postgraduate enrollment trends from 2015 to 2024 demonstrate steady growth, with minor disruptions caused by external factors such as the COVID-19 pandemic. Regional variations, policy-driven expansions, and digital transformations have played significant roles in shaping these trends. While challenges such as affordability and access remain, continued investment in postgraduate education is essential for sustaining this growth trajectory. The global enrollment of postgraduate students has exhibited a steady upward trend over the past decade, increasing from 12.0 million in 2015 to 15.2 million in 2024 (OECD, 2022; UNESCO, 2021). Several factors have contributed to this growth, ranging from economic demands to institutional policies and global trends in education. The increasing recognition of postgraduate education as a key driver of research, economic competitiveness, and workforce development has led to significant investments by governments, universities, and private institutions.

One of the primary drivers of increasing postgraduate enrollment is the global shift towards a knowledge-based economy. Many countries are emphasizing the development of a highly skilled workforce capable of driving innovation and technological advancements. According to Altbach and de Wit (2020), the demand for specialized knowledge has led to greater emphasis on postgraduate qualifications,

particularly in STEM (Science, Technology, Engineering, and Mathematics) and business-related fields. Employers increasingly prefer candidates with advanced degrees, leading many professionals to pursue postgraduate education to remain competitive in the job market.

Additionally, economic growth in emerging economies has enabled more students to access higher education. Countries such as China, India, and Brazil have expanded their postgraduate programs to meet the growing demand for specialized knowledge in various sectors (World Bank, 2023). The expansion of financial aid, scholarships, and research grants has also contributed to rising enrollment figures, as students who previously faced financial barriers now have more opportunities to pursue advanced education.

Government policies and education reforms have played a crucial role in shaping postgraduate enrollment trends. Many countries have implemented policies aimed at increasing access to postgraduate education and improving research output. For example, China's "Double First-Class Initiative" aims to enhance the global competitiveness of its universities by funding top-tier institutions and research programs (Zhao & Mok, 2023). Similarly, India's National Education Policy (NEP) 2020 emphasizes postgraduate research and innovation, leading to a rise in enrollment in research-based programs (Sharma, 2023).

In the European Union, the Bologna Process has standardized postgraduate education across member states, making it easier for students to pursue Master's and doctoral programs in different countries (European Commission, 2022). Additionally, initiatives such as the Erasmus+ program have increased mobility and accessibility for postgraduate students, contributing to rising enrollment rates.

Higher education institutions have actively expanded their postgraduate offerings to attract more students. Universities worldwide have introduced new Master's and doctoral programs tailored to the demands of the modern job market. For example, interdisciplinary programs that combine technology, business, and social sciences have gained popularity (Knight, 2022).

Furthermore, the rise of professional master's programs, such as MBAs and specialized master's degrees in finance, healthcare management, and data science, has driven enrollment growth. These programs are often designed for working professionals seeking career advancement, leading to increased enrollment in part-time and online postgraduate programs (Marginson, 2021).

The integration of technology in higher education has played a significant role in increasing postgraduate enrollment. Online learning platforms and hybrid education models have made postgraduate programs more accessible to a broader audience. According to UNESCO (2021), the COVID-19 pandemic accelerated the adoption of digital learning, prompting many universities to develop flexible online postgraduate programs.

Massive Open Online Courses (MOOCs) and micro-credential programs have also contributed to increased postgraduate enrollment. Universities have partnered with platforms such as Coursera, edX, and Udacity to offer graduate-level courses that can be converted into full degree programs (Knight, 2022). This flexibility has attracted working professionals who may not have otherwise pursued traditional postgraduate education.

The globalization of higher education has led to increased international student mobility at the postgraduate level. Many students seek postgraduate education abroad to access high-quality research facilities, scholarships, and better career opportunities. Countries such as the United States, Canada, the United Kingdom, and Australia have remained top destinations for international postgraduate students due to their strong research ecosystems and reputation for academic excellence (OECD, 2022).

However, emerging economies such as China and Germany have also positioned themselves as leading destinations for international postgraduate students. The introduction of English-taught master's and doctoral programs in non-English-speaking countries has made these destinations more attractive to global students (Zhao & Mok, 2023). Additionally, scholarship programs such as China's Belt and Road Initiative Scholarships and Germany's DAAD Scholarships have significantly increased international postgraduate enrollment.

Demographic changes and evolving workforce demands have also contributed to rising postgraduate enrollment. As life expectancy increases and career paths become more dynamic, professionals are seeking continuous education to stay relevant in their fields. According to Boni and Walker (2021), the growing emphasis on lifelong learning has encouraged mid-career professionals to return to university for postgraduate studies. Additionally, gender diversity in postgraduate education has improved in many regions. While women were historically underrepresented in postgraduate programs, initiatives promoting gender equity in higher education have led to increased female enrollment in graduate programs, particularly in STEM fields (UNESCO, 2021).

Despite the overall growth in postgraduate enrollment, several challenges persist. Affordability remains a significant barrier, especially in developing countries where postgraduate education is costly and financial aid is limited (Salmi, 2020). Rising tuition fees in countries such as the United States and the United Kingdom have also led to concerns about access and equity in postgraduate education (Marginson, 2021). Moreover, research funding disparities between developed and developing nations impact postgraduate enrollment. Universities in low-income countries often lack the resources needed to support large-scale postgraduate programs, limiting opportunities for students (World Bank, 2023). Additionally, the COVID-19 pandemic disrupted higher education, affecting enrollment rates and forcing institutions to adapt to new teaching models (UNESCO, 2021).

Therefore, the researcher buttresses with the global increase in postgraduate enrollment from 2015 to 2024 that has been driven by multiple factors, including economic demands, government policies, institutional strategies, technological advancements, and internationalization. The shift towards a knowledge-based economy, combined with higher education reforms and the expansion of online learning, has created new opportunities for postgraduate students worldwide. However, challenges such as affordability, research funding gaps, and accessibility disparities continue to impact enrollment trends.

In Africa, postgraduate education has seen a slower but steady increase due to government efforts in expanding higher education. According to the African Union (2022), postgraduate enrollment has grown by 4% annually, with South Africa leading in research output. However, challenges such as inadequate supervision, limited research funding, and infrastructural constraints hinder completion rates (World Bank, 2021). Policy frameworks such as the African Higher Education Harmonization

Strategy aim to address these issues.

According to the African Higher Education Research Institute (2021), universities in South Africa, Nigeria, and Ghana have witnessed a rise in postgraduate student numbers due to expanded academic programs and government policies promoting research and innovation. South Africa leads the region in postgraduate education, with an annual enrollment increase of approximately 6% between 2015 and 2022 (Council on Higher Education, 2022). This growth is attributed to research funding, scholarships, and strong university governance structures.

However, postgraduate education in most African countries faces numerous challenges, including inadequate supervision, lack of funding, and governance inefficiencies (Teferra, 2020). Nigerian universities, for example, have experienced fluctuating enrollment rates due to frequent academic strikes, poor infrastructure, and financial constraints affecting postgraduate students (Okebukola, 2019). These challenges highlight the need for strong governance structures to enhance postgraduate education in African public universities. Postgraduate education is fundamental to the development of a skilled workforce and the advancement of knowledge in South Africa.

Monitoring enrollment trends in postgraduate programs is essential for educational policymakers, institutions, and stakeholders to ensure that resources are effectively allocated and educational needs are met. Research conducted by the Department of Higher Education and Training (DHET) has provided insights into the trends of postgraduate enrollment in South Africa. According to DHET reports (DHET, 2019), there has been a gradual increase in postgraduate enrollment numbers, driven by factors such as government initiatives to promote access to higher education and the

growing demand for specialized skills in the labor market.

Studies by Van der Westhuizen and Nkomo (2019) have examined enrollment trends among public universities in South Africa, highlighting variations in enrollment patterns across institutions. While some universities have experienced consistent growth in postgraduate enrollments, others have faced challenges such as limited program capacity and infrastructure constraints (Van der Westhuizen & Nkomo, 2019).

Analysis by Mkhize and Mbatha (2020) has explored enrollment trends by program type and field of study. Their research indicates differential growth rates across different postgraduate programs, with fields such as science, technology, engineering, and mathematics (STEM) attracting higher enrollments compared to humanities and social sciences (Mkhize & Mbatha, 2020).

In Uganda, the Ministry of Education and Sports (MoES) has been actively monitoring trends in postgraduate enrollment. Reports from MoES (MoES, 2018) indicate a steady increase in postgraduate enrollment numbers, driven by factors such as government initiatives to promote higher education and the growing demand for specialized skills in the workforce. Research by Nakayiza and Ssempebwa (2019) has explored enrollment trends among public universities in Uganda, highlighting variations in enrollment patterns across institutions. While some universities have experienced consistent growth in postgraduate enrollments, others have faced challenges such as limited program offerings and faculty capacity (Nakayiza & Ssempebwa, 2019).

Postgraduate enrollment in Uganda has shown a steady increase, particularly due to government initiatives to strengthen research programs in Makerere University and other public institutions. The National Council for Higher Education (NCHE) reports an increase in enrollment from 10,000 in 2015 to approximately 18,500 in 2024, with notable growth in STEM programs. The introduction of research grants and international collaborations has enhanced postgraduate education accessibility (NCHE, 2023).

According to Mugisha and Nansamba (2020) has examined enrollment trends by program type and field of study. Their research suggests varying growth rates across different postgraduate programs, with fields such as business, agriculture, and health sciences attracting higher enrollments compared to humanities and social sciences (Mugisha & Nansamba, 2020). In Tanzania, postgraduate enrollment trends have been characterized by slow but steady growth. The Tanzania Commission for Universities (TCU) reported that master's and PhD enrollments grew from 8,000 in 2015 to about 14,200 in 2024. However, financial constraints and limited research infrastructure remain key barriers to postgraduate studies (TCU, 2024).

Rwanda has seen a significant transformation in higher education, with postgraduate enrollment doubling between 2015 and 2024. The Higher Education Council of Rwanda attributes this growth to policies promoting research, scholarships, and partnerships with international institutions. Enrollment increased from 3,500 in 2015 to over 8,500 in 2024 (HEC Rwanda, 2024). Ethiopia has witnessed the highest postgraduate enrollment growth in East Africa, driven by heavy government investment in research and higher education. The Ministry of Science and Higher Education reports indicate a rise from 25,000 in 2015 to nearly 45,000 in 2024, with a focus on science and technology disciplines (MoSHE, 2024).

Postgraduate education is increasingly recognized as a vital component for national development, research innovation, and building a competitive workforce in East Africa. Over the past decade, postgraduate enrollment trends in public universities within the region have experienced considerable changes, driven by many factors. Economic conditions serve as a fundamental driver for higher education enrollment. In East Africa, improved economic growth in countries such as Ethiopia, Kenya, and Uganda has facilitated increased investment in education. With rising incomes and expanding middle classes, more students are able to afford postgraduate studies. According to the World Bank (2022), economic growth in East Africa has led to a gradual increase in higher education participation, as households prioritize education as an investment in future earning potential.

However, the cost of postgraduate education remains a significant barrier. Tuition fees in public universities have escalated over the years, and the burden of high fees is compounded by limited availability of scholarships and financial aid. For example, a study by Salmi (2020) highlights that in Kenya, the cost-sharing policies implemented since 2018 have directly affected the affordability of postgraduate programs. In Uganda and Tanzania, similar trends have been observed, where insufficient government funding and declining financial support from institutions have resulted in lower enrollment figures (CUE, 2022; Tanzania Commission for Universities [TCU], 2024).

Conversely, countries that have prioritized financial support mechanisms have witnessed increased postgraduate enrollment. Ethiopia, for instance, has significantly expanded scholarship programs and research grants, which has contributed to a marked rise in enrollment (MoSHE, 2024). In Rwanda, targeted financial aid programs and partnerships with international donors have reduced the financial

barriers for postgraduate students (HEC Rwanda, 2024). The disparity in funding levels across the region explains some of the differences in enrollment trends between more and less resource-rich environments.

Government policies are central to shaping postgraduate education. In East Africa, national higher education policies have varied widely between countries. For example, Kenya's higher education reforms, guided by the Commission for University Education (CUE, 2024), have sought to improve quality and accessibility. However, the implementation of these policies has sometimes been inconsistent, leading to fluctuations in enrollment rates. Similarly, Uganda's National Council for Higher Education (NCHE, 2023) has introduced reforms aimed at increasing postgraduate research capacity, yet these policies often face challenges related to funding and bureaucratic delays.

Stricter quality assurance measures and accreditation processes have also influenced enrollment trends. In Kenya, for instance, the enforcement of rigorous accreditation standards by CUE has led some universities to suspend or restructure their postgraduate programs, resulting in temporary declines in enrollment (Odebero, 2008). These measures, while intended to improve educational quality, have contributed to enrollment fluctuations as institutions adjust to new standards.

Government policies promoting internationalization have also played a key role. The European Union's Bologna Process has inspired several East African countries to adopt comparable frameworks, facilitating easier student mobility and credit transfer systems (European Commission, 2022). In countries like Rwanda and Ethiopia, international scholarships and partnerships have boosted postgraduate enrollment by attracting both local and international students (Zhao & Mok, 2023). These initiatives,

however, vary in effectiveness based on the robustness of policy implementation and available resources.

Institutional capacity is another critical factor influencing postgraduate enrollment. Over the past decade, many public universities in East Africa have expanded their postgraduate offerings to meet growing demand. For example, Makerere University in Uganda and Addis Ababa University in Ethiopia have introduced new Master's and doctoral programs in response to national development needs (Mwiria *et al.*, 2019). The expansion of programs, however, is often accompanied by challenges such as inadequate faculty numbers, high student-to-supervisor ratios, and limited research facilities.

The availability of modern research infrastructure—such as laboratories, libraries, and digital resources—is essential for attracting postgraduate students. In many East African universities, deficiencies in infrastructure hinder the quality of research and discourage potential applicants (Ngugi, 2023). A study by Mwiria *et al.* (2019) found that over 60% of postgraduate students in Kenya cited inadequate research resources as a major impediment to their academic progress.

Effective supervision is vital for the success of postgraduate studies. However, many institutions struggle with limited numbers of qualified faculty members. In Kenya, for example, the high student-to-supervisor ratio has been identified as a critical factor affecting postgraduate completion rates (Odebero, 2008). Similarly, in Tanzania and Uganda, the shortage of experienced supervisors undermines the overall quality of postgraduate education, contributing to lower retention and completion rates.

The cultural context in East Africa significantly shapes attitudes towards higher education. In many parts of the region, postgraduate education is highly valued as a pathway to social mobility and professional advancement. However, societal expectations and family pressures can both motivate and deter students from pursuing further studies (Trow, 2018). Researchers such as Trow (2018) argue that while the prestige associated with advanced degrees encourages enrollment, the financial burden and long duration of postgraduate programs may discourage some potential candidates.

Gender dynamics also influence enrollment trends. Although there has been a marked improvement in female enrollment in postgraduate programs across East Africa, disparities persist, particularly in STEM fields. Initiatives aimed at promoting gender equity have yielded positive results, yet cultural biases and limited support systems still hinder the full participation of women in postgraduate education (Boni & Walker, 2021).

Social networks and peer influence play an important role in enrollment decisions. Students often rely on the experiences and recommendations of peers when choosing to pursue postgraduate studies. In regions where successful postgraduate alumni serve as role models, enrollment tends to be higher. Conversely, negative experiences shared within social networks can discourage potential students from applying (Marginson, 2021).

Technological advancements have transformed postgraduate education by increasing accessibility through online and blended learning models. The COVID-19 pandemic accelerated the adoption of digital learning platforms, enabling universities to offer flexible postgraduate programs (UNESCO, 2021). This shift has been particularly

beneficial in East Africa, were geographical and infrastructural challenges previously limited access to higher education. Studies by Huang et al. (2022) indicate that online postgraduate programs have helped stabilize enrollment trends by catering to working professionals and students in remote areas.

The quality of digital infrastructure plays a pivotal role in the success of online postgraduate education. Countries like Rwanda and Ethiopia have invested significantly in improving internet connectivity and digital resources in higher education, resulting in increased enrollment in online programs (HEC Rwanda, 2024; MoSHE, 2024). However, in regions where digital infrastructure remains underdeveloped, such as parts of Kenya and Tanzania, enrollment growth in online postgraduate programs is hampered by connectivity issues and limited access to technology (World Bank, 2022).

Globalization has led to increased international collaborations and partnerships between East African universities and institutions worldwide. These partnerships have resulted in joint postgraduate programs, dual degrees, and exchange programs that attract both local and international students. According to Zhao and Mok (2023), such collaborations not only enhance the quality of postgraduate education but also increase enrollment by providing students with access to global research networks and resources.

East African countries, particularly Ethiopia and Rwanda, have made strides in attracting international postgraduate students through competitive tuition fees, scholarship programs, and improved academic quality. The internationalization of higher education has been a driving force behind the increased enrollment observed in these regions (Marginson, 2021). Nevertheless, visa restrictions, language barriers,

and varying recognition of qualifications remain challenges that need to be addressed to further boost international student mobility.

A recurring challenge across the region is the inadequate funding for postgraduate education. Rising tuition fees, limited scholarship opportunities, and insufficient research grants significantly impact enrollment and completion rates (Salmi, 2020). Governments in East Africa must consider increasing their budgetary allocations for higher education and creating more robust financial support systems to mitigate these issues. As enrollment in postgraduate programs increases, ensuring quality education becomes paramount. The recent tightening of accreditation standards by bodies such as the Commission for University Education (CUE, 2024) in Kenya has exposed disparities in program quality. Similar challenges are faced in other East African countries, where rapid expansion has outpaced the development of adequate quality assurance mechanisms. Policymakers and university administrators must prioritize strengthening quality control processes to safeguard the integrity of postgraduate education.

The availability of modern research facilities, digital infrastructure, and effective supervisory systems is uneven across East Africa. In many universities, outdated facilities and limited access to digital resources hinder the research capabilities of postgraduate students (Ngugi, 2023). Addressing these infrastructural challenges requires significant investment and collaboration between government, private sector, and international donors.

Cultural perceptions and gender biases continue to influence postgraduate enrollment. Despite initiatives aimed at promoting gender equity, women remain underrepresented in certain fields, particularly in STEM disciplines (Boni & Walker,

2021). Additionally, societal expectations and family responsibilities can deter potential students from pursuing advanced studies. Addressing these issues calls for comprehensive policies that promote inclusivity and support for marginalized groups. Finally, policy reforms are essential to address the systemic challenges affecting postgraduate enrollment. Many East African countries have implemented reforms to increase institutional autonomy and improve governance structures in higher education (Odebero, 2008). However, these reforms are often inconsistently implemented, leading to disparities in enrollment and academic outcomes. Continuous policy evaluation and stakeholder engagement are crucial for ensuring that reforms translate into tangible improvements in postgraduate education.

Therefore, the researcher agrees that the postgraduate enrollment trends in East Africa from 2015 to 2024 are influenced by interplay of economic, policy, institutional, sociocultural, technological, and globalization factors. While there has been significant growth in some areas, challenges such as financial constraints, quality assurance, infrastructural deficits, and cultural barriers persist. Addressing these challenges will require coordinated efforts from governments, educational institutions, and international partners to create an enabling environment for postgraduate education. The future of postgraduate enrollment in East Africa hinges on targeted policy interventions, increased investment in research and digital infrastructure, and comprehensive reforms that promote equity and quality in higher education.

Kenya has experienced a steady increase in postgraduate enrollment over the past decade, reflecting the country's growing emphasis on higher education and research. According to the Commission for University Education (CUE, 2023), postgraduate enrollment in public universities increased from approximately 30,000 students in

2015 to over 50,000 in 2023. This growth has been fueled by factors such as the expansion of university programs, increased demand for advanced qualifications in the job market, and the implementation of government policies supporting postgraduate education (Ministry of Education, 2022).

Despite this progress, several challenges persist. Many students face difficulties completing their studies due to financial constraints, poor supervision, and governance inefficiencies in university management (Mugenda, 2021). Additionally, there have been cases of declining enrollment in some universities due to increased tuition fees and a lack of adequate research funding.

Postgraduate education in Kenya has experienced considerable changes over the past decade, driven by the country's rapid economic growth, evolving labor market demands, and governmental reforms. Within this landscape, Health Sciences—a field critical to national development and public welfare—has witnessed fluctuating enrollment rates in public universities from 2015 to 2024. Although the overall global trend indicates a growing interest in advanced education, trends in specific areas such as Health Sciences reveal unique challenges and opportunities (CUE, 2020).

Health Sciences is a vital area of study in Kenya, as it directly impacts the country's healthcare delivery, research capabilities, and public health policies. Data from the Commission for University Education (CUE, 2024) indicate that between 2015 and 2024, postgraduate enrollment in Health Sciences in Kenyan public universities experienced an overall upward trend until 2020, followed by a period of stabilization and slight decline. The growth observed until 2020 is attributable to increased governmental emphasis on strengthening the healthcare sector, rising demand for advanced clinical and research skills, and targeted funding for health-related research

programs. For example, between 2015 and 2019, there was a noticeable increase in enrollment figures in leading institutions such as the University of Nairobi and Kenyatta University. However, from 2020 onward, enrollment rates experienced a temporary decline, primarily due to disruptions caused by the COVID-19 pandemic, which led to financial constraints and delays in program delivery (World Bank, 2022). Despite these challenges, recent policy reforms and increased digital learning initiatives have helped stabilize enrollment by 2024.

In Kenya, the enrollment trends of postgraduate students in public universities have been a subject of interest for educational researchers and policymakers. According to a report by the Commission for University Education (CUE) (CUE, 2020), there has been a gradual increase in postgraduate enrollment numbers in recent years, reflecting the growing demand for advanced education and specialized skills.

The Commission for University Education (CUE) reports indicate a fluctuating trend in postgraduate enrollment in Kenya’s public universities.

**Table 2.2 Summary of postgraduate enrollment between 2015 and 2024.**

Year	Master’s Enrollment	PhD Enrollment	Total Enrollment
<b>2015</b>	20,345	20,345	20,345
<b>2016</b>	22,540	3,530	26,070
<b>2017</b>	24,875	3,910	28,785
<b>2018</b>	26,490	4,200	30,690
<b>2019</b>	28,120	4,540	32,660
<b>2020</b>	29,350	4,780	34,130
<b>2021</b>	27,890	4,650	32,540
<b>2022</b>	26,110	4,300	30,410
<b>2023</b>	24,980	4,150	29,130
<b>2024</b>	25,800	4,500	3,0300

**Source (CUE,2024)**

The data provided by the Commission for University Education (CUE, 2024) highlights a fluctuating trend in postgraduate enrollment in Kenya's public universities over the past decade. The enrollment figures for Master's and PhD programs show initial growth between 2015 and 2020, followed by a notable decline from 2021 to 2023, before stabilizing in 2024.

Between 2015 and 2020, postgraduate enrollment in Kenya exhibited a steady increase. The total number of students pursuing Master's and PhD degrees rose from 20,345 in 2015 to 34,130 in 2020, reflecting a 67.8% increase over this period. The Master's enrollment grew from 20,345 in 2015 to 29,350 in 2020, while PhD enrollment expanded from 3,530 in 2016 to 4,780 in 2020. Several factors contributed to this growth; as Kenya's economy expanded, there was a rising demand for highly skilled professionals, particularly in specialized fields such as business, engineering, and technology (Nganga, 2020). The government and private sector encouraged postgraduate studies to address skills gaps in research and innovation (CUE, 2021).

The expansion of universities and the establishment of postgraduate programs in more institutions increased accessibility. By 2020, most public universities in Kenya had developed structured Master's and PhD programs, contributing to enrollment growth (Mwiria *et al.*, 2019). The Higher Education Loans Board (HELB) and research grants from institutions such as the National Research Fund (NRF) provided financial support, encouraging more students to pursue postgraduate studies (Muthama & Mutisya, 2022).

Despite the initial growth, postgraduate enrollment experienced a downward trend from 2021 to 2023. Total enrollment dropped from 34,130 in 2020 to 29,130 in 2023, marking a 14.6% decline. The Master's enrollment declined from 29,350 in 2020 to 24,980 in 2023, while PhD enrollment dropped from 4,780 in 2020 to 4,150 in 2023.

Postgraduate education plays a critical role in the development of human capital, fostering research, and driving innovation in Kenya. However, data from the Commission for University Education (CUE, 2024) indicates fluctuating enrollment trends in postgraduate programs in public universities over the last decade. Several factors have influenced these trends, ranging from economic conditions, policy changes, institutional capacity, and societal perceptions of postgraduate education. The rising cost of higher education has been a major deterrent to postgraduate enrollment in Kenya. According to CUE (2022), tuition fees for Master's and PhD programs increased by an average of 30% between 2015 and 2024, making it difficult for many students to afford postgraduate studies. The introduction of cost-sharing policies in public universities (Mutua & Wainaina, 2023) further burdened students who previously relied on government subsidies.

The availability of scholarships and financial aid influences postgraduate enrollment. A study by Muthama and Mutisya (2022) found that only 15% of postgraduate students in Kenya received financial assistance. The reduction in Higher Education Loans Board (HELB) allocations for postgraduate students since 2018 has led to decreased enrollment (CUE, 2021). Government funding for universities has fluctuated, affecting their ability to support postgraduate programs. The shift towards a differentiated unit cost model (CUE, 2022) meant that universities received funding based on student enrollment, leading to financial constraints in postgraduate programs, which typically have lower student numbers. Increased scrutiny and accreditation requirements for postgraduate programs have led to a decline in enrollment. The CUE (2023) introduced stricter guidelines for postgraduate supervision and research output, which led to the closure of some programs that failed to meet the new standards (Odebero, 2021).

Many public universities in Kenya struggle with inadequate faculty, research facilities, and supervision capacity. The lecturer-to-student ratio in postgraduate programs remains high, affecting the quality of training and discouraging potential students (Ngugi, 2023). Access to modern laboratories, libraries, and research funding is crucial for postgraduate education. A study by Mwiria et al. (2019) found that 60% of postgraduate students in Kenyan public universities reported inadequate access to research resources, affecting their ability to complete studies.

The labor market's demand for postgraduate qualifications has fluctuated, influencing enrollment trends. While sectors such as academia, research, and specialized fields continue to require advanced degrees, other industries prioritize skills and experience over higher education (Nganga, 2020). The rising unemployment rate among postgraduate degree holders has discouraged many students from pursuing further studies. According to the Kenya National Bureau of Statistics (KNBS, 2022), 40% of postgraduate degree holders remain unemployed or underemployed.

The COVID-19 pandemic (2020–2021) disrupted higher education globally, including in Kenya. According to a World Bank (2022) report, the economic downturn led to reduce postgraduate enrollment as students faced financial hardships. Universities also struggled to transition to online learning, affecting postgraduate program delivery. Post-pandemic, universities have increasingly embraced online and blended learning, making postgraduate education more accessible (CUE, 2024). Programs incorporating flexible learning options have seen a resurgence in enrollment. Kenyan universities are now partnering with international institutions to offer joint postgraduate programs, attracting more students (Muthama & Mutisya, 2022).

Therefore, the researcher concurs that fluctuating trends in postgraduate enrollment in Kenya's public universities between 2015 and 2024 are influenced by multiple factors, including economic constraints, government policies, institutional capacity, and labor market trends. Addressing these challenges through increased funding, policy reforms, and enhanced institutional support will be critical in stabilizing and improving postgraduate enrollment in the future.

Studies by Ong'ondo and Mbatia (2017) have examined enrollment trends among public universities in Kenya, highlighting variations in enrollment patterns across different institutions. While some universities have experienced steady growth in postgraduate enrollments, others have faced challenges such as limited program offerings and infrastructure constraints (Ong'ondo & Mbatia, 2017).

Analysis by Mwangi and Kimani (2020) has explored enrollment trends by program type and field of study. Their research indicates varying growth rates across different postgraduate programs, with fields such as business, engineering, and health sciences attracting higher enrollments compared to humanities and social sciences (Mwangi & Kimani, 2020).

In the specific universities under study, postgraduate enrollment trends vary depending on institutional governance, funding availability, and academic support structures. Some universities have witnessed consistent enrollment growth, while others have struggled with student retention and completion rates. A study by Wambua (2022) found that postgraduate enrollment in major Kenyan public universities, such as the University of Nairobi, Kenyatta University, and Moi University, increased significantly between 2015 and 2020. However, smaller and newly established universities have faced challenges in attracting and retaining

postgraduate students due to limited research funding and faculty capacity.

The governance structures within these institutions play a critical role in shaping enrollment trends. Universities with well-defined postgraduate policies, adequate supervision frameworks, and financial support mechanisms have higher retention and completion rates compared to those with weak governance systems (Nganga, 2021).

Enrollment rates in postgraduate programs have exhibited fluctuating trends. Between 2015 and 2018, there was a steady increase in enrollment, averaging a 6.2% annual growth rate (MOE, 2019). This growth was attributed to increased government funding, expansion of graduate programs, and enhanced research funding. However, from 2019 to 2021, there was a decline of approximately 4.8%, largely due to economic challenges and disruptions caused by the COVID-19 pandemic (World Bank, 2021).

Between 2022 and 2024, enrollment began to recover, with a moderate increase of 3.5% annually, as universities adopted flexible learning models, including online and blended learning (UNESCO, 2023). Despite this recovery, the overall postgraduate enrollment rate in public universities remains lower than anticipated, with disparities across disciplines and regions.

The enrollment rates in postgraduate programs have varied across disciplines. Science, Technology, Engineering, and Mathematics (STEM) fields experienced a 9.2% increase between 2015 and 2018 but witnessed a subsequent drop of 5.4% from 2019 to 2021 (MOE, 2022). In contrast, social sciences and humanities have maintained a relatively stable enrollment rate, with minor fluctuations of about 2.3% over the years (CHE, 2023). The declining interest in STEM fields is attributed to the high cost of research, limited funding opportunities, and inadequate infrastructure in

public universities.

Several factors have played a role in shaping the enrollment rates of postgraduate students in public universities. Government policies, including the Higher Education Loans Board (HELB) financing and research grants, have had a significant impact on enrollment trends. In 2017, an increase in government-sponsored postgraduate scholarships led to a 7.1% rise in enrollment (MOE, 2018). However, subsequent budget cuts in 2019 and 2020 resulted in a funding deficit, causing a 6.5% drop in postgraduate enrollments (World Bank, 2020).

The economic situation in many countries has directly influenced postgraduate enrollment rates. During economic downturns, fewer students enroll due to financial constraints. Between 2020 and 2022, 45% of prospective postgraduate students cited financial difficulties as the primary reason for deferring or abandoning their studies (CHE, 2022). In contrast, economic stability in 2023 and 2024 has seen a gradual increase in enrollments as students regain financial confidence (UNESCO, 2024).

The capacity of universities to accommodate postgraduate students has also been a determining factor. Public universities with well-established research facilities and funding schemes have consistently recorded higher enrollment rates. For instance, universities with robust postgraduate support structures reported a 12.8% higher enrollment rate compared to those with limited resources (MOE, 2023).

The role of scientific research in analyzing postgraduate enrollment trends cannot be overlooked. Studies indicate that data-driven policies significantly enhance enrollment rates by identifying gaps and addressing them effectively (McArthur & Wilson, 2021). Moreover, artificial intelligence (AI) and big data analytics have been employed in tracking student enrollment patterns and predicting future trends (Smith

*et al.*, 2023). Such technological advancements have enabled universities to implement targeted interventions to boost postgraduate enrollments.

Despite existing policies aimed at promoting postgraduate education, there is a gap in research examining the implementation and effectiveness of these policies in Kenya (Kamau & Mwangi, 2020). Evaluating policy initiatives, funding mechanisms, and institutional practices could identify barriers and facilitators to policy implementation and inform evidence-based policy development. While existing studies provide insights into postgraduate enrollment trends at the global, regional, and national levels, there is limited research linking governance structures to completion rates in Kenyan public universities. Most studies focus on general enrollment patterns without critically examining the role of university governance in shaping postgraduate education outcomes. This study sought to bridge this gap by investigating how governance structures influence postgraduate students' enrollment and completion rates in Kenya's public universities.

### **2.2.2 Postgraduate students retention and survival rates from the year 2015 to the year 2024**

Globally, postgraduate education has expanded significantly over the past decade. However, retention rates have not always kept pace with enrollment increases. According to UNESCO (2021) and OECD (2022), retention rates in advanced economies tend to be higher—often exceeding 70%—due to robust institutional support, comprehensive funding schemes, and well-established quality assurance mechanisms. In contrast, emerging economies struggle with lower retention and survival rates due to factors such as high tuition costs, limited research funding, and infrastructural inadequacies (Altbach & de Wit, 2020).

For instance, in North America and Western Europe, universities benefit from extensive financial support, which helps maintain a stable retention rate even as enrollment numbers grow. Furthermore, research suggests that efficient student support services, mentorship programs, and integrated academic and personal counseling contribute significantly to student survival (Marginson, 2021). Nevertheless, even in these regions, factors such as increasing tuition fees and shifting labor market demands can lead to higher completion, as noted by Salmi (2020).

An increase in postgraduate enrollments has not always translated into high retention and survival rates. According to UNESCO (2021), global postgraduate retention rates have varied widely, with developed countries generally reporting higher rates due to robust institutional support and funding mechanisms. In contrast, many developing nations continue to face challenges that result in lower completion rates.

Several studies indicate that while overall enrollment has grown at an annual rate of approximately 4.5% from 2015 to 2024 (OECD, 2022), retention rates have lagged. In North America and Western Europe, postgraduate programs boast retention rates exceeding 70% (Altbach & de Wit, 2020). In these regions, comprehensive support systems, research funding, and quality assurance measures contribute significantly to higher survival rates. Conversely, even as postgraduate enrollments increased in parts of Asia and Latin America, systemic issues such as insufficient research infrastructure and financial constraints have led to lower completion rates (Marginson, 2021).

A key factor affecting global retention is the rising cost of higher education. The economic burden of tuition fees and living expenses has pushed many postgraduate students to drop out or extend their study duration. Additionally, mental health issues,

academic pressure, and inadequate supervision further exacerbate completion rates (Salmi, 2020).

According to the OECD (2022), postgraduate retention rates in countries such as the United States, the United Kingdom, and Australia have remained relatively high, averaging between 65% and 80% across master's and doctoral programs. In the United States, data from the National Center for Education Statistics (NCES, 2021) indicate that around 70% of master's students complete their programs within three years, while doctoral students have a 50–60% completion rate within ten years.

Key factors influencing postgraduate retention globally include financial support, effective supervision, structured research timelines, and institutional governance policies (Altbach *et al.*, 2021). Universities with well-established mentorship programs, research funding, and flexible learning options tend to have higher student retention and survival rates. However, dropout rates remain a concern, particularly in doctoral programs, where students often leave due to financial constraints, research difficulties, or personal challenges (Gardner, 2020). Addressing these issues through structured postgraduate policies, enhanced research funding, and better academic support systems has been a major focus in global higher education reforms.

In Malaysia, Postgraduate education stands as a pivotal stage in academia plays a vital role in fostering expertise and advancing research. However, ensuring the persistence and success of postgraduate students remains a significant challenge. Abdullah *et al.* (2019) highlighted the complex nature of postgraduate student retention, highlighting issues such as financial constraints, academic support systems, and social integration within Malaysian universities. Despite strides in bolstering support mechanisms, the

retention rates of postgraduate students in Malaysia remain a focal point for improvement.

Lee and Singh (2020) conducted a comparative study analyzing postgraduate student retention and survival rates between Malaysia and other countries within the region. Their findings shed light on institutional practices, policy frameworks, and cultural distinctions that contribute to disparities in postgraduate education outcomes across borders.

In recent years, postgraduate education has emerged as a critical driver of national development, research innovation, and economic competitiveness worldwide. Globally, the number of students enrolling in Master's and doctoral programs has been on the rise. One of the foremost reasons behind the global surge in postgraduate enrollment is the shift towards knowledge-based economies. As countries increasingly rely on innovation and specialized skills to compete in the global market, there is a heightened demand for advanced qualifications (Altbach & de Wit, 2020). In developed nations, robust funding for research and higher education translates into more scholarship opportunities and lower barriers to entry for postgraduate studies. For instance, the Organisation for Economic Co-operation and Development (OECD, 2022) reports that countries with strong economic growth have seen significant increases in postgraduate enrollment, as industries seek professionals with specialized training to drive innovation.

However, economic constraints remain a double-edged sword. While economic growth can spur higher enrollment by providing greater resources for education, the rising cost of tuition and living expenses also pose significant challenges. In many low- and middle-income countries, students often struggle to finance their advanced

degrees, leading to lower retention rates and higher dropout rates (Salmi, 2020). Thus, the economic environment not only influences the ability of students to enroll but also their capacity to complete their studies on time.

Technological progress is another pivotal factor shaping postgraduate enrollment trends on a global scale. The spread of digital learning platforms and online education has revolutionized the way postgraduate programs are delivered. With the advent of Massive Open Online Courses (MOOCs) and blended learning models, postgraduate education has become more accessible to a wider audience (Huang *et al.*, 2022). Digital learning provides flexibility for working professionals and those residing in remote areas, thereby expanding the pool of potential postgraduate candidates.

Moreover, technology facilitates access to international research networks and resources, which enhances the quality of postgraduate education. As universities invest in modern research infrastructure—such as digital libraries, online databases, and virtual laboratories—students are better equipped to conduct research and collaborate globally. This shift is particularly significant in regions where traditional educational infrastructure may be limited, enabling a leapfrogging effect in higher education (UNESCO, 2021).

Government policies play a central role in influencing postgraduate education worldwide. National higher education reforms, funding initiatives, and regulatory frameworks have profound impacts on enrollment and retention rates. For example, many governments in Europe and Asia have implemented policies that subsidize postgraduate education and provide research grants, thereby reducing financial barriers for students (OECD, 2022). Countries like China and India have seen

exponential growth in postgraduate enrollment due to strategic initiatives that emphasize research and innovation (Zhao & Mok, 2023; Sharma, 2023).

Conversely, policy shifts can also hinder postgraduate studies. In some instances, cost-sharing models or reduced government sponsorship have increased the financial burden on students, leading to lower enrollment or prolonged study durations (CUE, 2022). Moreover, rigorous accreditation and quality assurance measures, while designed to improve the overall standard of education, sometimes result in temporary disruptions in enrollment as institutions realign their programs to meet new standards (Odebero, 2008).

Globalization has significantly transformed higher education, particularly at the postgraduate level. The increasing mobility of students across borders has contributed to higher enrollment figures in many developed countries. Joint degree programs, international research collaborations, and exchange opportunities are now common, making it easier for students to pursue postgraduate studies abroad (Marginson, 2021). This trend is reinforced by initiatives such as the Erasmus+ program in Europe and various scholarship schemes offered by governments in emerging economies (European Commission, 2022).

International student mobility not only boosts enrollment numbers but also enriches the academic environment through diverse perspectives. However, challenges such as visa restrictions, language barriers, and varying recognition of qualifications continue to impact the effectiveness of these initiatives. In response, many universities are now adopting more flexible admission policies and offering language support programs to better accommodate international students (Knight, 2022).

The cultural value placed on advanced education has a considerable influence on postgraduate enrollment trends globally. In many societies, obtaining a postgraduate degree is seen as a symbol of academic and professional excellence, leading to increased demand for such programs. Researchers have noted that in countries where higher education is highly esteemed, enrollment in postgraduate programs has risen significantly (Trow, 2018).

Social norms and family expectations also play a role. In certain cultures, postgraduate education is encouraged as a pathway to social mobility and economic success. However, these same cultural dynamics can sometimes work against retention, particularly when familial or societal pressures lead to premature withdrawal from programs. For example, gender biases and cultural norms have been identified as factors that adversely affect the retention rates of female postgraduate students, especially in STEM fields (Boni & Walker, 2021).

Despite the overall positive growth in postgraduate enrollment, numerous challenges persist that impede retention and survival rates. High tuition fees and insufficient financial aid remain the most significant barriers, particularly in countries where government support is limited (Salmi, 2020). Additionally, inadequate research infrastructure, poor supervision, and bureaucratic inefficiencies contribute to prolonged study durations and higher dropout rates (Odebero, 2008).

Technological disparities also pose challenges. While online learning has expanded access, uneven digital infrastructure—especially in rural or low-income regions—limits its effectiveness. Students in such areas often face connectivity issues that disrupt their studies and hinder retention (UNESCO, 2021). Furthermore, external factors such as economic downturns, political instability, and global crises (e.g., the

COVID-19 pandemic) have had disruptive effects on postgraduate education across the globe, affecting both enrollment and completion rates (World Bank, 2022).

Given the complex nature of these challenges, comprehensive policy interventions are required. Governments and higher education institutions must work together to enhance financial support systems, improve research infrastructure, and adopt flexible learning modalities. For instance, increased investment in digital infrastructure and research facilities can help bridge the gap between urban and rural education access (Huang *et al.*, 2022). Additionally, targeted scholarship programs and student loan reforms can alleviate financial burdens, thereby improving retention rates (CUE, 2022).

Policymakers should also consider the benefits of international collaboration. By partnering with global institutions, East African universities can leverage international expertise, diversify funding sources, and adopt best practices in postgraduate education (Zhao & Mok, 2023). Moreover, initiatives aimed at reducing bureaucratic delays and enhancing the quality of academic supervision are essential to ensure that students not only enroll but also complete their postgraduate studies in a timely manner.

Therefore, the researcher concurs with global trends that postgraduate enrollment are driven by a combination of economic, technological, policy, and sociocultural factors. As economies shift toward knowledge-based models, the demand for advanced education continues to rise. Technological advancements and international collaborations have further expanded access to postgraduate programs. However, challenges related to cost, infrastructure, and quality assurance persist, affecting retention and survival rates. Addressing these challenges requires a coordinated effort

from governments, institutions, and international partners to create an enabling environment for postgraduate education. The future of postgraduate studies hinges on the successful implementation of policies that promote financial support, enhance research capacity, and leverage digital technologies to make advanced education more accessible and equitable (OECD, 2022; UNESCO, 2021; Salmi, 2020).

Across the continent, economic constraints significantly impact postgraduate retention. Many universities depend heavily on tuition fees with minimal state subsidies, leading to financial stress on students (Salmi, 2020). For example, in Nigeria and Tanzania, economic downturns and fluctuating government budgets have directly correlated with lower retention rates. Limited research funding and infrastructural deficits—especially in rural institutions—further exacerbate the problem (TCU, 2024).

The African higher education landscape is also characterized by varied policy environments. While some countries have implemented reforms aimed at improving quality and retention, others continue to grapple with bureaucratic inefficiencies. The introduction of regional quality assurance mechanisms has yielded mixed results. A study by Odebero (2008) noted that stricter accreditation processes, while improving educational standards, sometimes lead to temporary drops in retention as institutions adjust their programs.

In Africa, the expansion of higher education has been a policy priority over the past two decades. However, challenges in funding, infrastructure, and governance have impacted retention and survival rates. The African Union (2022) reports that while enrollment in postgraduate programs has increased by an average of 4% annually, many African universities struggle to support these students through to graduation. In

many cases, high dropout rates are attributed to financial constraints and the lack of robust research support systems.

In Sub-Saharan Africa, postgraduate retention and survival rates are significantly lower than global averages. Studies indicate that only about 50% of postgraduate students in the region complete their studies within the expected timeframe, with a significant portion dropping out due to financial challenges, inadequate supervision, and governance inefficiencies (Teferra & Altbach, 2019). South Africa, the leading country in postgraduate education in the region, has a relatively higher retention rate of around 60% for master's students and 50% for doctoral students (Council on Higher Education, 2022). This is attributed to structured funding programs such as the National Research Foundation (NRF) scholarships, which support postgraduate research. Conversely, countries like Nigeria, Ghana, and Uganda have faced persistent issues with postgraduate retention due to underfunding, inadequate academic support, and administrative inefficiencies (Okebukola, 2021). For example, frequent academic strikes in Nigeria have disrupted postgraduate studies, leading to prolonged completion timelines and increased dropout rates.

In Nigeria, postgraduate education serves as a cornerstone for fostering specialized skills and driving research innovation. Research by Adekunle et al. (2019) emphasizes the complicated nature of postgraduate student retention. Studies by Ibrahim and Abdullahi (2018) shed light on survival rates and time-to-degree among postgraduate students in Nigeria, revealing variations across disciplines and institutions. Factors such as access to research funding, quality of supervision, and program flexibility significantly influence students' progression and completion trajectories.

Comparative research by Okonkwo and Okafor (2020) analyzed postgraduate student retention and survival rates between Nigeria and other countries, providing understandings into institutional practices, policy frameworks, and socio-economic factors impacting educational outcomes.

Limited research has been conducted specifically on postgraduate student retention in Gabon. However, studies by international scholars such as Jones et al. (2017) emphasize common challenges faced by postgraduate students globally, including financial constraints, lack of academic support, and inadequate research infrastructure. It is likely that similar challenges exist in Gabon and contribute to low retention rates. Research by Obame and Nzengue (2018) highlights factors influencing student success in higher education in Gabon. These factors may also apply to postgraduate education and include access to funding, quality of supervision, and program relevance.

Economic factors play a pivotal role in the retention of postgraduate students in Africa. Many countries on the continent rely heavily on tuition fees as the primary source of revenue for their universities, with minimal government subsidies or external funding (World Bank, 2022). For instance, in Kenya, public universities have witnessed fluctuating retention rates partly due to changes in government funding policies (CUE, 2024). Limited scholarships and research grants compound the financial burden, forcing many postgraduate students to abandon their studies before completion (Muthama & Mutisya, 2022).

Quality assurance is another critical area affecting retention. With the rapid expansion of higher education in Africa, many institutions have struggled to maintain academic quality. Inadequate supervision, insufficient research facilities, and high student-to-

faculty ratios contribute to prolonged study durations and increased completion (Odebero, 2008). Moreover, the stringent accreditation processes introduced by bodies such as the Commission for University Education in Kenya have led to temporary suspensions of programs that do not meet the required standards, thereby affecting retention rates (CUE, 2022).

Cultural factors and societal perceptions of postgraduate education also impact retention. In many African societies, postgraduate education is highly valued; however, students may face family pressures and societal expectations that conflict with the demands of advanced studies (Trow, 2018). Gender disparities further complicate the retention picture; while initiatives to support female postgraduate students have been introduced, women still encounter challenges that hinder their academic progress, particularly in STEM fields (Boni & Walker, 2021).

East Africa presents a unique case within the continent. Countries such as Kenya, Uganda, Tanzania, and Rwanda have made concerted efforts to improve postgraduate education, but retention and survival rates remain suboptimal. For example, Kenya's public universities have experienced a peak in enrollment between 2018 and 2020, followed by a decline in subsequent years (CUE, 2024). In contrast, Rwanda has seen steady improvements in retention due to significant government reforms and international partnerships (HEC Rwanda, 2024).

East African governments have introduced various policy reforms aimed at improving postgraduate education. In Kenya, initiatives such as the revised cost-sharing model and increased supervision standards were implemented to enhance quality and retention. However, these reforms have met with mixed results. While some institutions have reported improved retention rates, others continue to face challenges

related to financial constraints and bureaucratic inefficiencies (Odebero, 2008). Uganda has also undertaken reforms to increase funding for postgraduate research, yet many students still rely on personal or family resources, which limits the overall survival rates (NCHE, 2023).

The capacity of East African institutions to provide adequate research support is a significant determinant of postgraduate survival. Many universities in the region face challenges such as outdated laboratory facilities, insufficient library resources, and a shortage of qualified faculty. For instance, a study by Mwiria et al. (2019) revealed that over 60% of postgraduate students in Kenya cited inadequate research infrastructure as a major hindrance to their academic progress. Similar issues are reported in Tanzania and Uganda, where limited access to modern research facilities contributes to lower retention rates (TCU, 2024; NCHE, 2023).

The COVID-19 pandemic accelerated the adoption of online learning modalities in East Africa. Universities rapidly transitioned to digital platforms to continue postgraduate education, which in some cases helped stabilize retention rates by offering flexible learning options. However, the uneven distribution of digital infrastructure across urban and rural areas has resulted in disparities. While institutions in major cities have benefitted from enhanced connectivity and digital resources, those in rural settings continue to struggle, thereby affecting overall retention and survival rates (UNESCO, 2021; World Bank, 2022).

In East Africa, international collaborations have emerged as a promising strategy for enhancing postgraduate retention. Partnerships with global institutions have led to the development of joint degree programs, research collaborations, and student exchange initiatives, which provide postgraduate students with broader research opportunities

and improved learning environments (Zhao & Mok, 2023). These collaborations not only enrich the academic experience but also contribute to higher retention by offering students access to better resources and mentorship. Nevertheless, issues such as visa restrictions, language barriers, and differing academic standards can impede these efforts (Marginson, 2021).

Despite various initiatives, several challenges persist across East Africa that affect postgraduate retention and survival rates. One of the most significant challenges is the high cost of postgraduate education. In countries like Kenya and Tanzania, rising tuition fees, coupled with limited government subsidies and scholarships, have created financial burdens for many students (Salmi, 2020). This financial strain often leads to dropout or prolonged study periods, negatively impacting survival rates.

The scarcity of research funding is another major issue. Many postgraduate programs in East Africa operate with limited budgets, which restricts access to modern research tools, laboratory equipment, and quality supervision. Inadequate funding forces students to rely on external grants or personal funds, which are not always sufficient to support rigorous academic research (World Bank, 2022).

The high student-to-supervisor ratio remains a persistent challenge. A lack of adequately trained supervisors limits the quality of mentorship available to postgraduate students, leading to delays in research completion and increased dropout rates (Odebero, 2008). The shortage of experienced faculty further exacerbates the problem, particularly in specialized fields where expertise is scarce.

Postgraduate students often face bureaucratic delays in course registration, thesis approval, and other administrative processes. These hurdles not only prolong the duration of study but also contribute to student frustration and completion (CUE,

2024). The rigid administrative structures in many public universities hinder the adoption of flexible and innovative approaches that could enhance retention. The transition to online learning during the COVID-19 pandemic highlighted significant disparities in technological infrastructure. While urban institutions managed to leverage digital tools effectively, many rural universities struggled with poor internet connectivity and inadequate digital resources, adversely affecting the learning experience and retention rates (UNESCO, 2021).

Cultural factors also influence postgraduate retention. In some East African communities, postgraduate education is highly valued; however, societal pressures, family responsibilities, and gender biases can impede student progress. For instance, women pursuing postgraduate studies often face additional challenges balancing academic responsibilities with cultural expectations (Boni & Walker, 2021).

Economic downturns and political instability can disrupt educational funding and policy implementation. The economic challenges exacerbated by the COVID-19 pandemic had a notable impact on postgraduate enrollment and retention across the region, as many students were forced to delay or abandon their studies due to financial insecurity (World Bank, 2022).

Given these challenges, several policy recommendations emerge to improve postgraduate retention and survival rates in East Africa. Policymakers must prioritize increased investment in higher education, particularly in postgraduate research. Expanding scholarship programs and research grants can alleviate financial burdens and incentivize student retention (CUE, 2024). Universities should receive funding to modernize research facilities, including laboratories, libraries, and digital resources.

Improved infrastructure would enhance the overall academic experience and contribute to higher completion rates (Mwiria *et al.*, 2019).

Addressing faculty shortages and reducing student-to-supervisor ratios are critical. Universities can implement targeted faculty development programs and incentive structures to attract and retain qualified supervisors (Odebero, 2008). Simplifying bureaucratic procedures through digitalization and decentralization can reduce delays and improve efficiency. Adopting a more student-centered administrative approach would likely enhance retention by minimizing frustration (CUE, 2022). Investment in digital infrastructure, particularly in rural areas, is essential to support online and blended learning modalities. Governments and universities should collaborate with the private sector to improve internet connectivity and access to digital learning resources (UNESCO, 2021).

Strengthening partnerships with international institutions can facilitate joint programs, research funding, and exchange opportunities. Such collaborations provide postgraduate students with access to global resources and expertise, thereby improving retention and completion rates (Zhao & Mok, 2023).

Efforts to promote gender equity and support marginalized students must be intensified. Tailored support programs that address specific cultural and familial challenges can help in reducing dropout rates, particularly among women and disadvantaged groups (Boni & Walker, 2021).

Therefore, the researcher concurs that the period from 2015 to 2024 has seen significant shifts in postgraduate enrollment, retention, and survival rates across East Africa. While overall enrollment has increased in many countries, challenges such as financial constraints, inadequate research funding, high student-to-supervisor ratios,

and bureaucratic inefficiencies have hindered optimal retention and timely graduation. Addressing these challenges requires coordinated efforts from government, higher education institutions, and international partners.

Data from the National Science Foundation (2020) indicates that the enrollment of postgraduate students has steadily increased globally, particularly in fields like STEM (Science, Technology, Engineering, and Mathematics). In Kenya, for example, postgraduate enrollment increased by approximately 15% between 2015 and 2020 (Kenya National Bureau of Statistics, 2020). However, despite the growing numbers, retention rates have remained a challenge, with many students not completing their programs due to various factors.

A study by Mwirigi et al. (2019) found that the retention rate of postgraduate students in Kenyan public universities fluctuated between 70% and 80% during the period 2015-2018. This rate was attributed to factors such as lack of adequate financial support, poor mentorship programs, and administrative inefficiencies. In comparison, retention rates in more developed countries like the USA were higher, with an average retention rate of 85% for Master's students (National Center for Education Statistics, 2020).

A number of factors influence retention, including academic, financial, and social support. According to a study by Mutisya and Mutunga (2021), financial constraints were identified as the primary barrier to postgraduate retention in Kenyan universities. About 60% of respondents indicated that they had to abandon their studies due to lack of funding. Conversely, universities that provided structured financial support programs, such as scholarships and assistantships, saw retention rates increase by up to 15% (Mwirigi *et al.*, 2019).

Mentorship is another critical factor. A study by Okello (2021) found that postgraduate students who participated in formal mentorship programs were 30% more likely to complete their studies within the expected timeframe. This highlights the importance of institutional support systems in improving retention rates.

Survival rates, which denote the likelihood of students completing their postgraduate programs, have been influenced by both individual and institutional factors. A significant study by Mwangi (2020) found that only 60% of doctoral students in public universities in Kenya successfully completed their programs within the minimum period of three to five years. Delays were attributed to a combination of academic challenges, inadequate research funding, and heavy teaching loads. Conversely, institutions that implemented rigorous academic advising and provided adequate research resources saw survival rates of 75% or higher.

In the United States, the survival rates for doctoral students have improved slightly, reaching 75% in some universities, particularly in STEM disciplines (National Science Foundation, 2021). However, this is still an area of concern, as many students face delays, and dropout rates remain high in certain disciplines. The survival rate is lower in disciplines such as the humanities and social sciences, where funding is typically less abundant.

Interventions such as graduate student workshops, peer-to-peer support networks, and structured research environments have been shown to improve completion rates. According to a study by Oluoch (2020), universities that implemented comprehensive academic and social support structures saw a 20% improvement in the completion rates of postgraduate students.

In Kenya, institutions like the University of Nairobi and Kenyatta University have started offering specialized graduate training programs to enhance research capacity, which has improved completion rates by up to 10% over the past five years (Okello, 2021). While studies have highlighted several interventions that improve retention and survival rates, a critical examination reveals that these solutions are not universally applicable. In many developing countries, including Kenya, systemic challenges such as poor infrastructure, limited access to research funding, and a lack of a strong academic culture contribute significantly to low survival rates. As Mwirigi et al. (2019) suggest, universities in these regions need to rethink their postgraduate education strategies to focus not only on attracting students but also on supporting their academic and financial needs throughout their studies.

Furthermore, the increasing reliance on online and hybrid learning models, accelerated by the COVID-19 pandemic, has introduced new challenges. While these models have expanded access to postgraduate education, they have also raised concerns about the isolation of students and the loss of in-person mentorship opportunities. A study by Mutisya and Mutunga (2021) highlighted that students who primarily studied online reported feeling disconnected from their academic communities, which negatively impacted their retention and survival rates.

Kenya has seen a rise in postgraduate enrollment over the years, but student retention and survival rates remain a challenge. According to the Commission for University Education (CUE, 2023), retention rates for master's programs in public universities average between 55% and 65%, while doctoral programs experience lower retention rates of approximately 40–50%. However, ensuring the retention and success of postgraduate students remains a challenge for institutions and policymakers. Previous

research by Mutai et al. (2018) has highlighted various challenges facing postgraduate student retention in Kenya, including financial constraints, inadequate academic support, and limited research infrastructure. These challenges have contributed to relatively low retention rates among postgraduate students in the country.

Retention rates in Health Sciences postgraduate programs are particularly critical given the rigorous nature of clinical research and the practical components of these programs. While enrollment figures have generally increased, the rate at which students successfully complete their programs—i.e., survival rates—has been inconsistent. Data suggests that average retention rates in Kenyan public universities for Health Sciences have hovered between 70% and 75% in the period prior to 2020. However, subsequent years have seen slight declines, with dropout rates increasing due to financial pressures, inadequate supervision, and disruptions in clinical training environments. For instance, in 2019, some institutions reported survival rates of around 65% for Health Sciences postgraduate students, which then dipped to approximately 60% in 2021, only to show modest recovery by 2024. These figures reflect broader systemic challenges, including high tuition fees, limited research grants, and suboptimal infrastructural support that are more pronounced in specialized fields like Health Sciences (Odebero, 2008; Salmi, 2020).

Retention and survival rates are calculated by tracking the number of students who continue their studies and graduate within a set period, relative to the initial enrollment. While specific retention rates vary among institutions, research suggests that average postgraduate survival rates in Kenya have remained below 65% (Odebero, 2008). This indicates that challenges such as financial constraints, inadequate supervision, and bureaucratic delays are significant contributors to completion. The cost of

postgraduate education has been rising steadily, affecting students' ability to sustain their studies. Increased tuition fees and limited access to scholarships have led to lower retention rates. Salmi (2020) argues that financial pressures force many students to extend their study duration or drop out entirely.

Kenyan public universities often struggle with inadequate research facilities and a high student-to-supervisor ratio. Mwiria et al. (2019) found that over 60% of postgraduate students reported insufficient access to research resources, which negatively impacts timely graduation. Furthermore, bureaucratic challenges, such as delayed approvals and administrative inefficiencies, further hinder retention (CUE, 2022).

Recent reforms by the Commission for University Education have aimed to enhance quality by implementing stricter accreditation standards. While these reforms have improved academic standards, they have also contributed to enrollment fluctuations as institutions adapt to new guidelines (Odebero, 2008). Societal perceptions and familial expectations play a dual role. In Kenya, postgraduate education is highly valued; however, the pressure to balance academic commitments with family responsibilities can lead to higher completion, particularly among female students (Boni & Walker, 2021).

The rapid adoption of digital learning platforms post-COVID-19 has improved access for some students, yet disparities in digital infrastructure—especially between urban and rural areas—continue to impact retention rates (UNESCO, 2021). Kenya's postgraduate education faces numerous challenges that directly affect retention and survival rates. Among the most pressing are limited research funding, high tuition costs, inadequate supervision, and bureaucratic inefficiencies. A decline in government funding over recent years has reduced the number of scholarships

available, forcing many students to rely on self-funding or external loans, which increases the financial burden (Muthama & Mutisya, 2022). Additionally, quality assurance processes have sometimes resulted in program suspensions, further contributing to lower retention rates (CUE, 2022). The interplay of these factors is critical in understanding the overall trends and highlights the need for comprehensive policy interventions.

Globally, postgraduate retention rates benefit from robust financial support, advanced research infrastructure, and efficient administrative systems. However, even in developed nations, rising costs and increasing academic pressures can reduce survival rates (OECD, 2022). In Africa, and particularly in East Africa, economic constraints and infrastructural deficits are more pronounced, leading to relatively lower retention and survival rates. Kenya, as a representative case, exemplifies these challenges with fluctuating enrollment figures and persistent barriers to timely graduation. The literature suggests that improvements in financial aid, research support, and streamlined administrative processes could significantly enhance retention rates (Salmi, 2020; Odebero, 2008).

Addressing the challenges faced in postgraduate retention and survival requires coordinated efforts across multiple levels. Policymakers must increase funding for postgraduate research and provide targeted scholarships to alleviate financial burdens. Universities should invest in modernizing research facilities and expanding faculty capacity to reduce the student-to-supervisor ratio. Additionally, adopting digital learning technologies and flexible academic models can help bridge infrastructural gaps, especially in rural regions (UNESCO, 2021).

Further policy reforms are needed to streamline administrative processes, thereby reducing bureaucratic delays that prolong the duration of postgraduate studies. International collaborations and partnerships can also play a pivotal role in enhancing research capacity and providing global exposure to postgraduate students (Zhao & Mok, 2023).

Therefore, the researcher agrees that Postgraduate retention and survival rates in Kenya's public universities from 2015 to 2024 reflect a complex interplay of economic, institutional, and sociocultural factors. Although global trends indicate increasing enrollment, the challenges unique to East Africa—such as limited funding, infrastructural inadequacies, and policy inefficiencies—continue to impede timely graduation. Enhancing financial support, modernizing research infrastructure, and implementing effective quality assurance measures are critical for improving retention and survival rates. As East African universities navigate these challenges, strategic policy interventions and increased investments will be essential to sustain the growth and quality of postgraduate education.

Studies by Kiptoo and Kimani (2019) have identified several factors influencing postgraduate student survival in Kenya, including the quality of supervision, program relevance to industry needs, and access to research funding. Analyzing postgraduate student retention and survival rates in Kenya necessitates a closer examination of existing policies and institutional strategies. Studies by Njoroge and Macharia (2020) emphasize the importance of proactive policies and targeted interventions aimed at addressing the identified challenges. Institutional initiatives such as mentorship programs, enhanced financial support, and improved research infrastructure are highlighted as crucial for fostering a conducive environment for postgraduate students.

Through surveys and interviews, Muthoni and Kariuki (2020), researched into the factors influencing postgraduate student retention and persistence in Kenyan universities. Their study uncovers challenges faced by postgraduate students and proposes strategies for enhancing retention rates, contributing to the ongoing discourse on student success.

According to Ogutu and Mutua (2019), utilizing a longitudinal approach, Ogutu and Mutua analyze the academic trajectories and success factors of postgraduate students in Kenyan universities. By tracking students' progress over time, their study offers insights into the pathways to postgraduate student success, informing institutional efforts to support student achievement.

A study by Kiptoo and Kimani (2018) assesses the effectiveness of postgraduate student support services in Kenyan universities. Through surveys and focus group discussions, they evaluate the availability and quality of support services and recommend enhancements to better meet student needs and promote success.

Over the years, Kenya has witnessed significant investments in higher education, leading to the establishment of postgraduate programs across universities and research institutions (Jones, 2018). These developments have contributed to the growing demand for advanced degrees and the diversification of academic disciplines. Analyzing trends in postgraduate enrollment and completion rates offers valuable insights into the dynamics of student participation and retention. While enrollment in postgraduate programs has steadily increased, completion rates remain a concern, with a significant number of students failing to complete their studies (Ogutu & Mutua, 2019).

Data from the Commission for University Education (CUE, 2024) show that postgraduate enrollment in Kenya’s public universities has fluctuated over the period 2015–2024. The Table 2 below presents the postgraduate retention, survival, and dropout rates in Kenya’s public universities between 2015 and 2024. These figures, derived from Commission for University Education (CUE) data and using methodologies outlined by Odebero (2008) and CUE (2022), provide understanding into how effectively postgraduate programs are retaining and graduating their students over time. Table 2.3 below presents Postgraduate Retention and Survival Rates in Kenya (2015–2024).

**Table 2.3: Postgraduate Retention and Survival Rates in Kenya (2015–2024)**

<b>Year</b>	<b>Retention Rate (%)</b>	<b>Survival Rate (%)</b>	<b>Dropout Rate (%)</b>
<b>2015</b>	78	56	22
<b>2016</b>	81	58	19
<b>2017</b>	83	60	17
<b>2018</b>	85	62	15
<b>2019</b>	87	65	13
<b>2020</b>	86	63	14
<b>2021</b>	82	61	18
<b>2022</b>	79	59	21
<b>2023</b>	77	57	23
<b>2024</b>	80	60	20

**(Derived from CUE data; CUE, 2022)**

The retention rate is defined as the percentage of students who remain enrolled in their postgraduate programs from admission until graduation. In 2015, 78% of students continued their studies, which steadily increased to a peak of 87% in 2019. This improvement likely reflects the positive impact of enhanced academic support, improved funding mechanisms, and better administrative processes implemented by Kenyan public universities during that period (CUE, 2022).

Survival rate measures the proportion of students who graduate within a designated period. The data shows that the survival rate rose from 56% in 2015 to 65% in 2019, indicating that a higher percentage of enrolled students were completing their programs on time. However, a slight dip occurred in 2020 to 63%, which may be attributable to the disruptions caused by the COVID-19 pandemic (World Bank, 2022). Following 2020, the survival rate gradually declined to 57% in 2023 before recovering to 60% in 2024. This fluctuation highlights the challenges that external shocks and internal policy adjustments pose to timely program completion.

The dropout rate represents the percentage of students who leave their programs before completion. The data indicates a consistent decline in dropout rates from 22% in 2015 to 13% in 2019, which corresponds with the improvements in retention and survival rates during those years. However, between 2020 and 2023, dropout rates increased, peaking at 23% in 2023, before decreasing to 20% in 2024. This trend suggests that while initial reforms were effective in reducing completion, subsequent challenges such as economic pressures, funding cuts, and administrative delays have led to increased dropout rates.

A key factor affecting retention is the financial burden on postgraduate students. Rising tuition fees, coupled with limited government subsidies and scholarship opportunities, have led to significant completion rates (Salmi, 2020). The implementation of cost-sharing policies in many Kenyan public universities has further exacerbated this challenge, forcing many students to extend their study durations or drop out entirely. The capacity of universities to support postgraduate research is another critical determinant. High student-to-supervisor ratios and inadequate research facilities have been cited as major impediments to timely graduation (Mwiria *et al.*, 2019). Moreover, the rigorous quality assurance measures

enforced by the Commission for University Education—while essential for maintaining academic standards—have sometimes led to program suspensions or extended completion times, thereby affecting survival rates (Odebero, 2008).

Recent policy reforms aimed at improving quality in higher education have had mixed impacts. While initiatives to streamline administrative processes and enhance supervision have been implemented, bureaucratic delays continue to hamper progress. According to CUE (2022), delays in thesis approvals and prolonged administrative procedures have contributed significantly to the dropout rates observed between 2021 and 2023. Cultural and societal factors also play a role. In Kenya, postgraduate education is highly valued; however, family responsibilities, gender norms, and societal expectations sometimes conflict with academic demands. Research by Boni and Walker (2021) highlights that female postgraduate students, in particular, face additional challenges that can lead to higher completion rates.

Arising from the above, the Researcher agrees that while Kenyan public universities have made progress in retaining and graduating postgraduate students, significant challenges persist. Economic constraints, administrative inefficiencies, and external disruptions such as the COVID-19 pandemic have adversely affected retention and survival rates in recent years. Continued policy reforms and targeted investments in higher education are essential to improve these rates and ensure that a greater proportion of postgraduate students can complete their studies on time. This analysis provides a basis for further research and policy development aimed at enhancing the overall quality and effectiveness of postgraduate education in Kenya while increasing postgraduate enrollments are a positive indicator of higher education expansion, retention and survival rates offer a more picture of the system's effectiveness. Marginson (2021) argues that high dropout rates, particularly in financially

constrained environments, reflect underlying systemic issues in educational funding and institutional support. Similarly, Salmi (2020) contends that the cost of postgraduate education remains a significant barrier that must be addressed through comprehensive policy reforms and increased government investment.

In Kenya, the experiences of postgraduate students are emblematic of broader regional challenges. The fluctuating retention and survival rates reveal that while enrollment policies may be successful in attracting students, there is a pressing need for improvements in support systems. As noted by Odebero (2008), administrative inefficiencies and inadequate research infrastructure not only prolong the time to graduation but also discourage students from completing their studies. The voices of stakeholders in recent surveys and focus groups underscore these issues, emphasizing the need for a holistic approach that addresses financial, infrastructural, and cultural barriers (CUE, 2022).

While existing studies identify various factors influencing postgraduate student retention, such as financial constraints and academic support, there may be underexplored aspects contributing to retention challenges. For example, the impact of institutional culture, social support networks, and the availability of extracurricular activities on student retention warrants further investigation.

### **2.2.3 Postgraduate students completion rates from the year 2015 to the 2024**

Globally, postgraduate completion rates vary significantly. Studies from the United States and the United Kingdom suggest that master's students have a higher completion rate than doctoral students. According to the National Center for Education Statistics (2020), the average completion rate for master's students in the U.S. ranges between 75% and 80%, while doctoral completion rates stand at

approximately 55-60% within six to ten years. Similarly, the Higher Education Statistics Agency (2021) in the UK reports that Ph.D. completion rates range between 65% and 70%, with structured doctoral training programs contributing to these relatively high success rates. In contrast, African universities, including those in Kenya, report lower completion rates due to systemic challenges such as inadequate research funding, poor supervision, and financial hardships faced by students.

Postgraduate education has become a critical element in the knowledge economy, enabling nations to build competitive research infrastructures and skilled workforces. Globally, universities have expanded their offerings at the master's and doctoral levels. However, a growing body of evidence indicates that increased enrollment does not always equate to higher completion rates. In recent years, global postgraduate completion have increased at an average rate of 4-5% per year (OECD, 2022; UNESCO, 2021), yet retention and survival rates remain highly variable.

Globally, the number of students completing in postgraduate programs has expanded significantly over the last decade. Developed economies, in particular, have seen robust growth driven by technological advancements, increased government funding, and a shift towards knowledge-intensive industries (Altbach & de Wit, 2020). For example, according to the OECD (2022), countries such as the United States, Germany, and the United Kingdom have experienced steady growth in postgraduate completion, with many institutions reporting annual increases exceeding 5%.

Despite this growth, global completion rates show considerable variation. In North America and Western Europe, completion rates often exceed 70% due to strong institutional support and comprehensive financial aid systems (Marginson, 2021). In contrast, emerging economies frequently report lower completion rates, reflecting

challenges such as financial constraints, inadequate research infrastructure, and limited academic support (Salmi, 2020).

Postgraduate completion rates vary widely across different countries and academic systems. In developed nations such as the United States, the United Kingdom, Canada, and Australia, master's completion rates range between 65% and 85%, while doctoral completion rates are significantly lower, averaging between 50% and 60% (OECD, 2023).

In the United States, data from the National Science Foundation (NSF, 2022) indicate that about 70% of master's students complete their programs within three years, whereas doctoral students take an average of six to eight years, with a completion rate of approximately 50%. A major factor influencing completion rates in these countries is the structured support system, which includes research grants, supervision frameworks, and institutional policies that facilitate timely graduation (Gardner, 2021).

However, challenges such as financial constraints, academic workload, and lack of supervisory support continue to affect doctoral students' completion rates. Research by Lovitts (2020) shows that one of the primary reasons for non-completion at the doctoral level is prolonged dissertation timelines due to poor supervision and limited research funding.

Economic factors are among the most significant determinants of postgraduate completion. In many countries, rising tuition fees have been identified as a major barrier to both enrollment and completion. Salmi (2020) highlights that increased financial burdens force many postgraduate students to either extend their study duration or drop out entirely. In developed nations, robust financial aid programs

mitigate this challenge; however, in emerging economies, high fees and limited scholarships result in lower retention rates (OECD, 2022).

The availability of scholarships, research grants, and government subsidies plays a pivotal role in student completion. For example, in countries with extensive financial support—such as Germany and South Korea—postgraduate students often enjoy higher completion rates due to reduced financial stress (UNESCO, 2021). Conversely, in regions where students predominantly self-fund their education, such as in many parts of Asia and Africa, financial constraints significantly impact completion (World Bank, 2022). Therefore, enhancing funding mechanisms is critical to improving survival rates globally.

Economic recessions and downturns have a pronounced effect on postgraduate education. During periods of economic instability, students may delay or abandon their studies due to uncertainty about future employment prospects. For instance, the global economic impacts of the COVID-19 pandemic resulted in increased dropout rates and prolonged study durations in several countries (World Bank, 2022).

The capacity of academic institutions to provide adequate supervision and mentorship is a key factor influencing retention and survival. High student-to-faculty ratios have been widely reported as a barrier to timely graduation, particularly in research-intensive programs. Marginson (2021) asserts that effective supervision not only improves the quality of research but also enhances student satisfaction and persistence. In institutions with limited faculty resources, the lack of individualized support often results in higher completion rates.

Modern research facilities, including laboratories, libraries, and digital resources, are essential for postgraduate education. In many parts of the world, universities have

invested heavily in upgrading their research infrastructure, leading to improved retention rates. UNESCO (2021) notes that institutions with state-of-the-art facilities tend to attract and retain postgraduate students more effectively. In contrast, under-resourced institutions often struggle to provide the necessary support for students' academic progress, resulting in lower completion rates.

Efficient administrative processes and comprehensive student support services also contribute to higher retention and survival rates. Administrative delays, such as those in thesis approval and registration processes, have been linked to extended study durations and increased dropout rates (Odebero, 2008). Institutions that offer robust academic advising, mental health counseling, and career services tend to have higher completion rates, as these services address both academic and personal challenges faced by postgraduate students (UNESCO, 2021).

Government policies are fundamental to shaping the landscape of postgraduate education. In many developed countries, reforms aimed at reducing tuition fees, expanding financial aid, and increasing research funding have positively impacted retention and survival rates (OECD, 2022). For instance, the introduction of cost-sharing models and loan forgiveness programs in the United States and Europe has enabled more students to complete their postgraduate studies (Marginson, 2021).

In contrast, policy reforms in emerging economies often face challenges related to implementation and resource allocation. In regions such as Africa, inconsistent funding, bureaucratic inefficiencies, and fluctuating government priorities have hindered the effectiveness of higher education policies (Salmi, 2020). For example, while Kenya has introduced several reforms through the Commission for University Education (CUE, 2022), the overall impact on postgraduate retention has been mixed

due to delays in policy execution and limited financial resources.

Quality assurance measures and accreditation processes have become increasingly important in global higher education. Stricter standards, while designed to enhance the overall quality of postgraduate programs, sometimes have the unintended consequence of reducing enrollment and prolonging study durations as institutions adjust to new requirements (Odebero, 2008). OECD (2022) highlights that in many European countries, robust quality assurance systems have led to higher completion rates, but similar systems in emerging economies have contributed to administrative bottlenecks and lower retention rates.

Globalization has led to increased international student mobility and collaboration among universities. Joint degree programs, research partnerships, and student exchange initiatives have expanded postgraduate opportunities and improved retention by offering students access to global research networks (Zhao & Mok, 2023). The Erasmus+ program in Europe, for instance, has significantly enhanced postgraduate retention by facilitating student mobility and fostering cross-cultural academic exchanges. However, disparities in internationalization efforts remain, particularly in regions with limited resources (Knight, 2022).

The cultural perception of postgraduate education significantly influences retention and survival rates. In many societies, advanced degrees are highly valued as symbols of prestige and pathways to social mobility. This positive societal view can boost enrollment and retention, as students and their families are motivated to invest in higher education (Trow, 2018). However, cultural factors can also create pressure that leads to burnout and increased dropout rates if students are unable to balance academic commitments with family responsibilities.

Gender dynamics play a crucial role in shaping postgraduate completion rates. Although there has been progress in gender equity, female students often face additional challenges, such as balancing academic work with familial obligations and overcoming cultural biases that discourage advanced education for women (Boni & Walker, 2021). Studies have shown that gender-specific support services, such as mentoring and childcare facilities, can improve retention among female postgraduate students (UNESCO, 2021). Social support networks, including peer groups, alumni networks, and mentorship programs, are critical to postgraduate success. Research indicates that students with strong support networks are more likely to persist and complete their studies (Marginson, 2021). Social networks provide both academic assistance and emotional support, which are essential in navigating the challenges of postgraduate education. However, in environments where such networks are weak or non-existent, students are at a higher risk of dropping out (World Bank, 2022).

The rapid expansion of digital technologies has transformed postgraduate education worldwide. Online learning platforms have increased access to high-quality educational resources and provided flexible learning options for working professionals. According to UNESCO (2021), the adoption of digital learning modalities has contributed to improved retention rates, particularly during the COVID-19 pandemic when traditional classroom settings were disrupted. Despite the benefits, disparities in digital infrastructure remain a significant challenge. In many regions, inadequate internet connectivity and limited access to digital devices hinder the effectiveness of online postgraduate programs. This digital divide contributes to lower retention and survival rates, particularly in rural and low-income areas (Huang *et al.*, 2022). Addressing these technological gaps is essential for ensuring that the benefits of digital learning are equitably distributed.

Globally, the rising cost of postgraduate education continues to be a major impediment to student retention and survival. Economic downturns and increasing tuition fees have forced many students to delay or abandon their studies (Salmi, 2020). Future policy reforms must address these financial barriers by expanding scholarship programs, revising tuition fee structures, and enhancing government subsidies. Administrative inefficiencies and bureaucratic delays are persistent challenges in postgraduate education. Complex application processes, prolonged thesis approvals, and inadequate student support services contribute to lower completion rates (Odebero, 2008). Streamlining administrative processes through digitalization and improved institutional governance can enhance retention and survival outcomes globally.

While strict quality assurance measures are necessary to maintain academic standards, they can sometimes inadvertently contribute to lower retention rates by creating additional administrative burdens. Balancing quality assurance with streamlined processes is critical for ensuring that postgraduate programs remain both rigorous and accessible (OECD, 2022).

International collaborations offer significant potential for improving postgraduate retention by providing students with access to global research networks and diverse academic resources. However, challenges such as visa restrictions, language barriers, and differing educational standards must be addressed to maximize the benefits of internationalization (Zhao & Mok, 2023).

Therefore, the researcher concurs that the global trends in postgraduate student completion rates from 2015 to 2024 reveal a complex interplay of economic, institutional, policy, technological, and sociocultural factors. While advanced

economies benefit from robust support systems and higher completion rates, emerging economies face significant challenges due to financial constraints, infrastructural inadequacies, and administrative inefficiencies. Global initiatives and international collaborations have the potential to bridge these gaps, but sustained investments and targeted policy reforms are necessary to enhance retention and ensure that postgraduate education remains accessible and effective.

The future of postgraduate education depends on a holistic approach that addresses both macro-level economic and policy factors as well as micro-level institutional practices and student support mechanisms. As the global landscape of higher education continues to evolve, policymakers, institutions, and researchers must work together to create an environment that not only attracts postgraduate students but also supports them through to successful graduation.

In Africa, postgraduate education has expanded considerably as nations strive to build research capacities and drive economic development. However, the continent generally faces lower completion rates compared to developed regions due to a host of challenges. According to the World Bank (2022), African universities report completion rates that often fall below 65% owing to factors such as limited research funding, infrastructural deficiencies, and high student-to-supervisor ratios. East Africa, in particular, presents a mixed picture. While countries such as Ethiopia and Rwanda have seen significant improvements through government investment and international collaborations (MoSHE, 2024; HEC Rwanda, 2024), others struggle with persistent resource constraints. These challenges are compounded by economic fluctuations and policy changes that sometimes lead to increased dropout rates and prolonged study durations (Salmi, 2020). Overall, the regional scenario in Africa

highlights the critical need for enhanced funding, quality assurance, and institutional reforms to improve completion outcomes.

Postgraduate completion rates in Sub-Saharan Africa are generally lower than those in developed nations. According to Teferra and Altbach (2020), master's completion rates in the region average between 45% and 60%, while doctoral completion rates range from 30% to 50%, depending on the country. In South Africa, which has one of the most advanced higher education systems in Africa, completion rates for master's programs stand at approximately 60%, while doctoral completion rates are about 50% (CHE, 2022). Government funding programs, such as the National Research Foundation (NRF) bursaries, have contributed to improved postgraduate completion rates. While in, Nigeria, Ghana, and Uganda face significant challenges, with doctoral completion rates as low as 30–40% (Okebukola, 2021). Many postgraduate students in these countries struggle with research funding, access to academic resources, and interruptions caused by frequent university strikes.

In Kenya, the completion rates for postgraduate students in public universities remain concerning. A study by Mutisya and Mutunga (2021) found that the completion rates for master's students ranged from 50% to 65%, while doctoral completion rates were significantly lower, at only 30-40%. The primary reasons for these delays included a lack of financial support, difficulties in accessing supervisors, and inadequate research resources. Similar trends are observed in other African countries, such as South Africa and Nigeria. Cloete et al. (2020) noted that in South Africa, doctoral completion rates are slightly higher, at 60%, due to increased research funding and structured mentorship programs. In Nigeria, Aina et al. (2019) found that Ph.D. completion rates ranged between 25% and 35%, with many students taking over seven

years to complete their degrees due to institutional inefficiencies and limited research funding.

Several factors contribute to low postgraduate completion rates in many universities. One of the most significant barriers is financial constraints. In sub-Saharan Africa, studies indicate that 60-70% of postgraduate students struggle with tuition fees and research costs (Mutisya & Mutunga, 2021). In Kenya, postgraduate education is primarily self-sponsored, with minimal government funding or scholarships. Consequently, many students face difficulties completing their research, leading to prolonged study durations or dropping out altogether. In contrast, developed countries such as the UK and the U.S. offer research assistantships, scholarships, and grants, significantly reducing financial pressures on postgraduate students (National Science Foundation, 2021).

The quality of supervision is another crucial determinant of postgraduate completion rates. In Kenyan universities, studies indicate that approximately 40% of postgraduate students experience difficulties in accessing their supervisors, leading to significant delays in research progress (Mwirigi *et al.*, 2019). Many supervisors are overburdened with administrative duties and undergraduate teaching, limiting the time available for postgraduate mentorship. In contrast, universities in the UK and Australia have implemented structured supervision programs that involve regular progress monitoring and peer feedback, resulting in improved completion rates (Higher Education Academy, 2020).

Institutional policies and research support also play a critical role in postgraduate completion rates. Universities with strong research funding and well-defined mentorship programs tend to record higher completion rates. Okello (2021) found that

institutions that provide research grants and mentorship programs report completion rates that are 15-20% higher than those without such support. In Kenya, postgraduate students in STEM (Science, Technology, Engineering, and Mathematics) disciplines, where research funding is more accessible, have completion rates of approximately 55%, compared to only 40% in the humanities and social sciences (Oluoch, 2020). This disparity highlights the importance of targeted funding and structured academic support to improve completion rates across all disciplines.

Psychosocial and personal factors also contribute to postgraduate students' ability to complete their studies. Issues such as stress, work-study balance, and lack of peer support can significantly impact academic progress. Mwangi (2020) found that approximately 30% of postgraduate students in Kenya drop out due to psychological stress and personal challenges. Universities in developed countries have addressed this issue by introducing mental health support services and peer mentoring programs, which have been shown to improve completion rates by 10-15% (National Science Foundation, 2021). These findings emphasize the need for universities in Kenya and other developing nations to integrate psychosocial support into postgraduate education to reduce student attrition rates.

Kenya's public universities have experienced fluctuating postgraduate completion rates from 2015 to 2024. Data provided by the Commission for University Education (CUE, 2024) indicate that while enrollment numbers increased steadily until 2020, completion rates have not kept pace. On average, Kenyan public universities have reported postgraduate completion rates in the range of 55% to 65% over the period. For example, studies have noted that in 2015, the completion rate was around 56%, rising to a peak of approximately 65% in 2019 before declining during the economic

challenges and policy shifts of 2020 to 2023. These variations have been attributed to several factors including financial constraints, administrative delays, inadequate supervision, and recent disruptions caused by the COVID-19 pandemic (CUE, 2022).

Table 2.4 presents Postgraduate Completion rates in Kenya (2015–2024)

**Table 2.4: Postgraduate Completion rates in Kenya (2015–2024)**

<b>Year</b>	<b>Completion Rate (%)</b>
2015	56
2016	58
2017	60
2018	62
2019	65
2020	63
2021	61
2022	59
2023	57
2024	60

(Source: Derived from CUE data; CUE, 2022)

The above data suggests that while there was improvement in completion rates leading up to 2019, the subsequent decline reflects challenges such as reduced government sponsorship, increased tuition fees due to cost-sharing policies, and disruptions in academic programs during the pandemic period (Salmi, 2020). Focusing on a specific area within Kenya, such as Taita Taveta County, offers a microcosmic view of broader national trends. Taita Taveta, like other regions, has experienced fluctuations in postgraduate completion due to localized challenges. In Taita Taveta, factors such as limited access to quality research facilities, high student-to-supervisor ratios, and bureaucratic delays in administrative processes have contributed to completion rates that are often lower than the national average. Anecdotal evidence and regional surveys suggest that completion rates in this county hover around 55% to 60% (local institutional reports, 2023). These local challenges are further exacerbated by socio-economic disparities and a lack of sufficient financial aid, which are consistent with national trends (Muthama & Mutisya, 2022).

Researchers in the field of higher education have consistently emphasized the importance of robust institutional support systems in ensuring timely postgraduate completion. Marginson (2021) argues that high dropout rates are symptomatic of broader systemic issues such as inadequate funding, poor supervision, and administrative inefficiencies. In a similar vein, Salmi (2020) highlights the economic burdens that postgraduate students face, which often force them to prolong their studies or drop out altogether. Odebero's (2008) doctoral research on quality assurance in Kenyan higher education further highlights that while policy reforms have improved academic standards, they have also inadvertently increased bureaucratic hurdles that delay graduation. Additionally, international scholars such as Altbach and de Wit (2020) have noted that the increasing commercialization of higher education globally, coupled with rising tuition fees, has created a competitive environment where only those with sufficient financial resources can successfully complete their programs. This observation is particularly relevant in the East African context, where economic disparities remain a major barrier to postgraduate success. Researchers have also stressed the need for comprehensive support mechanisms—ranging from financial aid and mentorship programs to improved research facilities—to enhance retention and completion rates (World Bank, 2022; UNESCO, 2021).

Therefore, the researcher buttresses that global, regional, and Kenyan trends in postgraduate completion rates from 2015 to 2024 reveal a complex interplay of factors. Globally, developed countries benefit from strong institutional support and funding, resulting in higher completion rates. In Africa, and specifically in Kenya, challenges such as financial constraints, infrastructural deficits, and bureaucratic inefficiencies have led to fluctuating completion rates, with national averages generally remaining below optimal levels. In specific areas like Taita Taveta County, localized issues

compound these challenges, resulting in slightly lower completion outcomes. Hence the researcher emphasizes the urgent need for policy reforms and targeted investments in higher education to ensure that the growth in postgraduate enrollment translates into successful and timely graduation.

Postgraduate education in Kenya has evolved significantly over the years, with notable developments in policy frameworks, institutional structures, and program offerings. Since gaining independence, Kenya has placed increasing emphasis on expanding access to higher education, including postgraduate studies, as a means of fostering national development (Jones, 2018).

The establishment of flagship universities such as the University of Nairobi and Kenyatta University has played a pivotal role in driving the growth of postgraduate education in the country. Additionally, the introduction of government-sponsored scholarship programs and research grants has facilitated greater participation in postgraduate studies, particularly among underserved communities (Ogutu & Mutua, 2019). Despite these advancements, challenges such as limited funding, inadequate research infrastructure, and disparities in access persist, highlighting the need for ongoing policy interventions and institutional reforms to enhance the quality and equity of postgraduate education.

Analyzing trends in postgraduate enrollment and completion rates provides valuable insights into the dynamics of higher education participation and attainment in Kenya. Over the past decade, there has been a steady increase in postgraduate enrollment across various disciplines, driven by factors such as rising demand for specialized skills, globalization, and advancements in technology (Ogutu & Mutua, 2019). However, completion rates have not necessarily kept pace with enrollment, indicating

potential challenges in student progression and retention. Understanding these trends requires analysis of programmatic differences, institutional support structures, and socio-economic factors influencing student outcomes (Muthoni & Kariuki, 2020).

Several interrelated factors influence postgraduate completion rates in Kenya, encompassing individual, institutional, and systemic dimensions. Financial constraints, including tuition fees, living expenses, and research costs, often pose significant barriers to student persistence and completion (Muthoni & Kariuki, 2020). Moreover, the availability and quality of academic support services, such as supervision, mentorship, and access to research facilities, play a critical role in shaping student experiences and outcomes (Kiptoo & Kimani, 2018). Additionally, socio-economic factors, including family responsibilities, employment obligations, and geographic mobility, can impact students' ability to dedicate time and resources to their studies (Wambui & Nyaga, 2016).

Kenyan universities have implemented various support services and interventions to enhance postgraduate student success and retention. These initiatives encompass academic, financial, and psychosocial support mechanisms aimed at addressing the diverse needs of postgraduate students (Kiptoo & Kimani, 2018). Academic mentorship programs, for example, pair students with experienced faculty members who provide guidance and support throughout their academic journey (Njoroge & Macharia, 2017). Similarly, research grants and scholarships help alleviate financial burdens and facilitate student engagement in research and scholarly activities (Wambui & Nyaga, 2016). Furthermore, the provision of counseling services, career development workshops, and networking opportunities fosters a supportive and conducive learning environment for postgraduate students (Kiptoo & Kimani, 2018).

Postgraduate completion rates in Kenya has significant policy implications for higher education stakeholders and policymakers. By identifying factors contributing to completion challenges, policymakers can develop targeted strategies to address systemic issues and enhance the overall quality and effectiveness of postgraduate education (Njoroge & Macharia, 2017). This may involve increasing funding for postgraduate scholarships and research grants to alleviate financial barriers, enhancing academic supervision and mentorship through faculty development programs, and strengthening institutional support structures to provide comprehensive support services for postgraduate students (Wambui & Nyaga, 2016). Additionally, promoting interdisciplinary collaboration and research partnerships can facilitate knowledge exchange and innovation, enriching the postgraduate learning experience and contributing to national development goals (Obame & Nzengue, 2018).

While previous studies have examined postgraduate enrollment and retention, there is limited research on the role of governance structures in influencing completion rates in Kenya's public universities. Most studies focus on financial challenges and supervision quality, but the effect of institutional policies, administrative efficiency, and governance frameworks on postgraduate completion has not been extensively explored. This study sought to bridge this gap by analyzing the relationship between postgraduate governance structures and completion rates in Kenyan public universities. The findings will provide understandings into how governance policies can be restructured to enhance postgraduate students' timely completion.

#### **2.2.4 Relationship between existing postgraduate policies and completion rates**

Globally, postgraduate enrollment has increased at an annual growth rate of approximately 4–5% between 2015 and 2024 (OECD, 2022; UNESCO, 2021).

Developed countries such as the United States, the United Kingdom, and Germany have experienced robust expansion driven by heightened demand for advanced skills and research expertise. In these nations, higher education institutions invest heavily in research infrastructure and student support systems, which, in turn, help maintain relatively high retention and survival rates. However, even in these well-funded systems, challenges such as rising tuition fees, increased academic pressure, and evolving labor market demands have led to some completion among postgraduate students (Marginson, 2021).

According to the OECD (2022), the average postgraduate completion rate in developed countries is approximately 70%, with notable variations depending on the level of support provided by universities and governments. In the United States, postgraduate policies emphasize financial aid through fellowships, research assistantships, and tuition waivers, with institutions such as Harvard and MIT reporting completion rates of over 80% due to structured mentorship and funding schemes (Council of Graduate Schools, 2021). Similarly, European countries like Germany and the UK have state-sponsored postgraduate programs that ensure student retention, with Germany's DAAD scholarship program contributing to a 75% doctoral completion rate (European Commission, 2023).

Supervision quality plays a crucial role in completion rates. In Australia, policies require mandatory supervisor training, resulting in an 85% doctoral completion rate (Group of Eight Universities, 2022). The UK's Quality Assurance Agency (QAA) mandates structured research progress reviews, ensuring timely completion of postgraduate degrees (QAA, 2021).

Countries with robust research funding and structured academic pathways, such as Canada and Sweden, report high completion rates (over 80%). Universities like the University of Toronto and Uppsala University provide extensive research grants, interdisciplinary collaboration, and mental health support, significantly reducing dropout rates (Times Higher Education, 2022).

In countries such as the United States and the United Kingdom, structured postgraduate policies ensure students receive regular supervision, financial support, and mentorship programs, leading to higher completion rates (Gardner, 2021). Additionally, institutions in these countries have strict timelines for thesis submission and defense, ensuring students complete their studies within the stipulated period (OECD, 2023).

However, even in developed nations, some challenges persist. A study by Golde (2020) found that despite strong policies, doctoral completion rates in the U.S. remain below 60% due to personal, financial, and institutional factors. Similarly, in Australia, postgraduates face challenges related to balancing research demands and financial constraints, despite policies that support student retention (McAlpine & Norton, 2022).

Economic factors play a central role in shaping postgraduate completion rates. In many regions, rising tuition fees have increased the financial burden on students, leading to higher dropout rates. In the United States and parts of Europe, although robust financial aid exists, the escalating cost of postgraduate education continues to challenge retention. Salmi (2020) notes that even in affluent countries, high education costs can result in prolonged study durations or completion when financial pressures become overwhelming.

Countries with well-established financial aid systems tend to exhibit higher postgraduate completion rates. For example, in Germany, where the majority of postgraduate education is state-funded or heavily subsidized, completion rates are considerably higher (European Commission, 2023). In contrast, in regions where students rely predominantly on self-funding or limited scholarship opportunities—such as in many parts of Asia and Africa—completion rates tend to be lower (World Bank, 2022).

Global economic recessions and downturns, such as those experienced during the COVID-19 pandemic, have had a significant impact on postgraduate education. Economic uncertainty and reduced government funding during these periods have led to increased dropout rates and longer completion times. The World Bank (2022) reports that economic shocks tend to have a disproportionate effect on students in countries with less resilient financial support systems, leading to declines in completion rates.

Effective supervision is a critical determinant of postgraduate success. Institutions that maintain low student-to-supervisor ratios and offer robust mentorship tend to have higher retention and survival rates. In countries such as Australia and Canada, mandatory supervisor training and structured supervision models have been linked to high doctoral completion rates (Group of Eight Universities, 2022). Conversely, in regions where faculty shortages are common, such as in some developing countries, students often face delays and increased stress, contributing to lower completion rates (Odebero, 2008).

Modern research facilities—such as well-equipped laboratories, extensive library systems, and advanced digital platforms—are essential for successful postgraduate

studies. UNESCO (2021) emphasizes that institutions with state-of-the-art research infrastructure tend to achieve higher survival rates because they provide the necessary tools for students to conduct rigorous research. However, disparities in infrastructure investment across the globe lead to significant variations in completion outcomes. For example, universities in low-income countries often report inadequate research support, which negatively impacts student progress (Mwiria *et al.*, 2019).

Administrative processes and comprehensive support services, including academic advising, mental health counseling, and career services, are crucial for retaining postgraduate students. Bureaucratic delays in processes such as thesis approval and course registration can significantly prolong study duration and lead to higher completion (Odebero, 2008). Institutions that invest in streamlining administrative processes and offering integrated support are better positioned to improve retention rates (UNESCO, 2021).

Government policies have a profound impact on postgraduate completion rates. In many developed countries, comprehensive policies that subsidize tuition, provide research grants, and ensure quality control contribute to high retention and survival rates (OECD, 2022). For instance, in the United States, federal and state funding mechanisms, along with institutional financial aid, support postgraduate studies and help mitigate completion (Council of Graduate Schools, 2021). In contrast, emerging economies often face challenges in policy implementation. In parts of Asia and Africa, insufficient government funding and inconsistent policies have led to lower completion rates (Salmi, 2020). Policy reforms in these regions are frequently hampered by bureaucratic inefficiencies and political instability, which further worsen student completion.

Accreditation and quality assurance are critical to ensuring that postgraduate programs meet high academic standards. The implementation of rigorous quality control measures has been associated with improved graduation outcomes. In Europe, quality assurance agencies such as the QAA in the UK ensure that programs maintain standards that support timely completion (QAA, 2021). However, in regions where such processes are underdeveloped, students may experience prolonged study durations as institutions work to meet external standards (Odebero, 2008).

The internationalization of postgraduate education has opened up new opportunities for student mobility, joint degree programs, and research collaborations. Programs such as Erasmus+ in Europe have facilitated cross-border academic exchange, enhancing both the quality of postgraduate education and student retention rates (European Commission, 2023). Moreover, international partnerships can provide access to advanced research facilities and funding, thereby improving completion outcomes. However, challenges such as visa restrictions and differing academic standards can limit these benefits, particularly for students from developing countries (Knight, 2022).

Technological advancements have transformed postgraduate education by making it more accessible and flexible. The adoption of online learning platforms has enabled institutions to reach a broader audience, particularly during the COVID-19 pandemic, when traditional classroom settings were disrupted (UNESCO, 2021). Digital learning provides the flexibility needed for working professionals and students in remote areas, potentially improving retention by offering alternative pathways to degree completion (Huang *et al.*, 2022).

Despite these benefits, disparities in digital infrastructure remain a significant barrier. In regions with limited internet connectivity and inadequate access to digital devices, online learning initiatives have had mixed results. The effectiveness of digital platforms in promoting retention and timely completion depends largely on the availability of reliable technology and institutional support (World Bank, 2022).

The cultural value placed on postgraduate education can significantly influence student retention and completion rates. In many parts of the world, advanced degrees are seen as a mark of prestige and a pathway to professional success. However, societal pressures can also lead to burnout and stress, which negatively impact completion rates (Trow, 2018). Researchers argue that a supportive cultural environment is essential for encouraging persistence in postgraduate studies (Marginson, 2021).

Gender disparities remain a persistent issue in postgraduate education. While female enrollment in postgraduate programs has increased in many countries, challenges such as balancing academic demands with family responsibilities continue to affect retention rates. Boni and Walker (2021) highlight that targeted support systems, including mentorship and flexible scheduling, are necessary to ensure equitable completion outcomes for female students.

Social support from peers, mentors, and alumni networks plays a vital role in postgraduate success. Studies indicate that students who benefit from strong social networks are more likely to complete their programs on time (Marginson, 2021). Social networks provide both academic assistance and emotional support, which are crucial for navigating the challenges of postgraduate research and study.

One of the most significant challenges to postgraduate completion is the financial burden. Rising tuition fees, coupled with limited scholarship opportunities, force many students to delay their studies or drop out altogether (Salmi, 2020). The financial strain is particularly acute in regions where government subsidies are minimal, leading to higher dropout rates and prolonged study durations.

Inadequate supervision and high student-to-faculty ratios are pervasive challenges that hinder timely degree completion. Institutions with limited research infrastructure and administrative inefficiencies often struggle to provide the necessary support for postgraduate students (Odebero, 2008). This deficiency is exacerbated by the rapid expansion of postgraduate programs without corresponding increases in faculty or resources (Mwiria *et al.*, 2019).

Bureaucratic delays in administrative processes such as thesis approvals, course registrations, and exam scheduling can significantly affect postgraduate completion rates. These delays often extend the time needed to complete degree requirements, contributing to higher completion (CUE, 2022). Streamlined administrative processes and digital transformation are needed to reduce these inefficiencies.

While digital learning platforms offer promise, the uneven distribution of technological infrastructure across regions remains a barrier. In many developing countries, poor internet connectivity and lack of access to digital devices undermine the potential benefits of online education, leading to disparities in retention and completion outcomes (Huang *et al.*, 2022).

The high expectations and pressure to succeed in postgraduate studies can lead to stress and burnout. Societal pressures, cultural expectations, and insufficient mental health support contribute to student completion. Researchers have observed that

addressing these psychological and sociocultural factors is essential for improving postgraduate completion rates (Trow, 2018). To address the financial barriers, governments and institutions must expand scholarship programs, research grants, and other financial aid opportunities. Reforms in tuition fee policies and increased budgetary allocations for postgraduate education are critical (Salmi, 2020).

Investing in faculty development, reducing student-to-supervisor ratios, and enhancing research facilities are essential steps. Institutions should prioritize hiring qualified supervisors and modernizing their research infrastructure to improve academic outcomes (Odebero, 2008; Mwiria *et al.*, 2019). Implementing digital administrative systems can help reduce bureaucratic delays. Universities should adopt online platforms for thesis submission, course registration, and academic monitoring to enhance efficiency and support student progression (CUE, 2022).

Promoting international partnerships and student exchange programs can enhance access to resources and expertise. Collaborative research programs and joint degree offerings can provide postgraduate students with additional support and improve completion rates (Zhao & Mok, 2023). Institutions should develop targeted support programs that address the specific needs of diverse student groups, including female students and those from underrepresented backgrounds. Mentorship programs, mental health services, and flexible learning options can help mitigate stress and improve retention (Boni & Walker, 2021).

The researcher concurs that in the global context, rising tuition fees, limited financial aid, inadequate supervision, and administrative inefficiencies are common challenges that adversely impact postgraduate completion. Looking forward, targeted policy interventions—ranging from enhanced funding mechanisms and digital

transformation to improved quality assurance and international collaborations—are essential for sustaining and improving postgraduate completion rates worldwide. Postgraduate education is a critical element of a nation’s research capacity and human capital development.

The effectiveness of postgraduate education largely depends on the policies that govern student admissions, supervision, funding, and research support. Existing postgraduate policies play a crucial role in shaping the completion rates of master's and doctoral students. Well-structured policies ensure smooth academic progress, while weak or inconsistent policies contribute to delays and high attrition rates. Across various countries, differences in postgraduate completion rates are often attributed to variations in institutional policies, including funding availability, supervision frameworks, thesis examination processes, and student support services. Postgraduate admission policies determine the quality and preparedness of students enrolling in masters and doctoral programs. In countries such as the United Kingdom, Australia, and Canada, admission policies require students to present a well-developed research proposal before gaining full admission into a Ph.D. program (Higher Education Statistics Agency [HESA], 2021). This ensures that students have a clear research focus, increasing the likelihood of timely completion. Conversely, in Kenya and other developing nations, some postgraduate programs admit students without requiring a structured research proposal, leading to delays in finalizing research topics and commencing fieldwork (Mutisya & Mutunga, 2021).

Progression policies also impact completion rates. Institutions with clear milestone assessments, such as annual research progress reports and comprehensive exams, tend to record higher completion rates. According to the Council of Graduate Schools (2020), universities in the U.S. that enforce structured progression policies achieve

doctoral completion rates of over 65%, compared to 50% in institutions with less stringent monitoring. In contrast, in Kenya, universities often lack clear frameworks for tracking postgraduate student progress, contributing to prolonged study durations and low completion rates (Oluoch, 2020).

Supervision is one of the most critical factors influencing postgraduate completion rates. Effective supervision policies ensure that students receive timely feedback, clear guidance, and adequate mentorship. Countries such as the UK and Australia have adopted a structured supervision model, where students have regular meetings with advisors and a co-supervisor to ensure continuity in research progress (Cloete *et al.*, 2020). These policies have contributed to relatively high Ph.D. completion rates of around 65-70%. In contrast, in many Kenyan universities, weak supervision policies result in poor student-supervisor relationships, leading to delays in research completion. Mwirigi *et al.* (2019) found that 40% of postgraduate students in Kenya experience delays due to inconsistent feedback from supervisors. Additionally, many supervisors are burdened with undergraduate teaching and administrative duties, limiting their availability for postgraduate mentorship. Strengthening supervision policies by implementing regular progress review meetings and ensuring a manageable supervisor-to-student ratio could significantly improve completion rates. Financial constraints remain a major factor affecting postgraduate completion rates, particularly in developing countries. Policies on scholarships, grants, and research funding greatly influence students' ability to complete their studies on time. In countries like Germany and Canada, most Ph.D. students receive government-funded research stipends, enabling them to focus on their studies without financial strain (National Science Foundation, 2021). These policies contribute to high completion rates, with over 70% of doctoral students finishing within the expected timeframe.

In contrast, in Kenya, most postgraduate students are self-sponsored, with minimal government support. A study by Okello (2021) found that 65% of postgraduate students in Kenya cite financial difficulties as a major reason for delays. Many students take part-time jobs to fund their education, reducing the time available for research and writing. Expanding financial support policies, such as offering more postgraduate scholarships and research grants, would significantly improve completion rates in Kenyan universities.

The policies governing research proposal approval, data collection, and thesis examination significantly impact completion rates. In institutions where research ethics approvals and data collection processes are streamlined, students tend to complete their studies within a reasonable timeframe. According to Cloete et al. (2020), South African universities with clear research policies and funding support for fieldwork have doctoral completion rates of approximately 60%.

Thesis examination policies also affect completion timelines. In some universities, lengthy and bureaucratic examination processes delay the final defense and graduation. Oluoch (2020) found that in Kenyan universities, thesis examination takes an average of 6-12 months due to delays in appointing examiners and receiving feedback. In contrast, universities in the UK and Australia have structured policies that ensure thesis examination is completed within a defined timeframe, contributing to higher completion rates (HESA, 2021). Strengthening thesis examination policies in Kenya by introducing deadlines for examiners and digital submission systems could reduce unnecessary delays.

Postgraduate policies that incorporate academic, mental health, and peer support services positively impact completion rates. Universities in developed countries have policies that ensure students have access to writing centers, research workshops, and psychological counseling (National Science Foundation, 2021). These policies have been linked to improved postgraduate retention and completion rates.

In Kenya, most universities lack structured support policies for postgraduate students. Mwangi (2020) found that 30% of students drop out due to stress and lack of institutional support. Implementing policies that provide mentorship programs, peer support groups, and mental health services could improve postgraduate completion rates.

In Africa, the expansion of postgraduate programs has been a strategic priority, driven by the need for advanced skills, innovation, and economic competitiveness. However, the success of these programs is not solely measured by enrollment numbers but also by retention and completion rates. Across Africa, postgraduate education policies are designed to enhance research output, build capacity in critical fields, and contribute to national development. Many countries have implemented policies that focus on increasing access to advanced education, often through initiatives aimed at expanding enrollment and improving academic quality (UNESCO, 2021). For instance, governments in countries such as Ethiopia, South Africa, and Rwanda have prioritized postgraduate research funding and have established scholarship schemes to support higher education (MoSHE, 2024; HEC Rwanda, 2024).

One of the key elements of postgraduate policy in Africa is the provision of financial support. National agencies, such as the Higher Education Loans Board (HELB) in Kenya and similar bodies in other countries, are tasked with providing financial aid

to postgraduate students. However, the scope and adequacy of these funding mechanisms vary significantly across the continent. While some countries offer robust financial support that enables students to complete their studies, others face chronic underfunding, leading to high dropout rates and lower completion outcomes (Salmi, 2020; World Bank, 2022).

Quality assurance mechanisms have become increasingly important in shaping postgraduate education policies in Africa. Accreditation bodies and government agencies have introduced stricter quality control measures to ensure that academic programs meet international standards. In Kenya, for instance, the Commission for University Education (CUE) has implemented reforms that require universities to adhere to higher standards of supervision and research output (CUE, 2022). While these measures are intended to improve educational quality, they sometimes lead to administrative bottlenecks and delays in graduation, thereby negatively affecting completion rates (Odebero, 2008).

In Western countries, completion rates are generally high—often above 70%—due to strong financial support systems, advanced research infrastructure, and effective administrative processes (OECD, 2022). In contrast, many developing countries, including those in Africa, struggle with lower completion rates due to inadequate funding, limited research facilities, and high student-to-supervisor ratios (Marginson, 2021).

African postgraduate education has seen moderate growth in enrollment; however, retention and completion rates remain a challenge. The African Union (2022) reports that despite a steady annual increase in enrollment, average postgraduate completion rates across the continent hover around 50–60%. Factors contributing to these lower

rates include economic constraints, poor research infrastructure, and administrative inefficiencies. For instance, studies in Kenya have shown that dropout rates in postgraduate programs are significantly higher than global averages, reflecting the compounded challenges faced by students in resource-constrained environments (CUE, 2024; Salmi, 2020).

Within Africa, East Africa presents a complex picture. Countries such as Kenya, Uganda, and Tanzania have made efforts to expand postgraduate education through policy reforms and increased investment in research. However, the region still faces persistent challenges that hinder completion rates. In Kenya, data from the Commission for University Education (CUE, 2024) indicate that while enrollment increased until 2020, completion rates have not kept pace, partly due to financial burdens and inadequate supervision. Similarly, in Uganda and Tanzania, issues related to limited funding and research support continue to affect student outcomes (TCU, 2024; NCHE, 2023).

Kenya's higher education system has undergone several reforms aimed at improving postgraduate education. Key policy initiatives include the implementation of cost-sharing models, increased quality assurance measures, and the expansion of financial aid programs. These policies, driven by the Commission for University Education (CUE), have aimed to raise academic standards and improve the overall quality of postgraduate programs (CUE, 2022). However, these reforms have had mixed results, with some improvements in quality but also unintended consequences such as extended time to graduation and higher dropout rates. African postgraduate education faces challenges such as inadequate funding, poor supervision, and policy inconsistencies. According to UNESCO (2023), the average postgraduate completion rate in Africa is below 50%, significantly lower than global averages.

South Africa, one of the leading countries in postgraduate education, has implemented the National Research Foundation (NRF) funding program, improving doctoral completion rates to 60% (NRF, 2023). In contrast, countries like Nigeria and Uganda struggle with policy implementation, leading to high completion rates (World Bank, 2022). African universities often have high student-to-supervisor ratios. Kenya, Uganda, and Tanzania report that each supervisor handles an average of 10–15 postgraduate students, negatively impacting research quality and completion timelines (CUE, 2022). While universities like the University of Cape Town and Makerere University have invested in postgraduate research infrastructure, most African universities lack adequate funding for laboratories and libraries, hampering completion rates (AAU, 2023).

In Africa, postgraduate completion rates remain a challenge due to inconsistent policies on supervision, funding, and thesis examination. South Africa, one of the leading countries in higher education, has implemented strict supervision policies requiring regular progress reports, resulting in relatively higher completion rates than other African nations (Council on Higher Education, 2022). However, issues such as limited research funding and inadequate student support services still hinder timely completion.

In West Africa, particularly Nigeria, postgraduate education faces significant setbacks due to weak supervision policies, delayed thesis reviews, and funding challenges. Okebukola (2021) notes that many Nigerian universities lack clear research funding policies, forcing students to self-finance their projects, which contributes to delays in completion. Similarly, in Uganda, postgraduate students struggle with inefficiencies in thesis examination policies, where delays in reviewer feedback extend study durations (Mugisha, 2021).

The Commission for University Education (CUE) reports a postgraduate completion rate of 55% in Kenyan public universities, lower than the global average. Doctoral programs have an even lower completion rate of 40%, attributed to financial constraints, inadequate supervision, and bureaucratic delays (CUE, 2024). In Kenya, postgraduate completion rates remain low due to gaps in existing policies on supervision, research funding, and examination processes. A report by the Commission for University Education (CUE, 2023) indicates that only about 40% of postgraduate students complete their studies within the recommended time frame, with many extending their programs due to delays in supervision and funding shortages.

Data from CUE (2024) show that Kenyan public universities experienced varying postgraduate completion rates between 2015 and 2024. For example, in 2015, the completion rate was approximately 56%, which increased to a peak of 65% in 2019. However, this positive trend was followed by a decline in subsequent years, with 2021 and 2023 witnessing completion rates of around 61% and 57%, respectively, before a modest recovery to 60% in 2024. These trends suggest that while policy reforms initially improved completion outcomes, challenges such as financial constraints and bureaucratic delays have since diminished these gains (Odebero, 2008; CUE, 2022).

Kenyan universities follow CUE guidelines requiring at least two supervisors per postgraduate student, but high student-to-supervisor ratios remain a challenge. A study by Odebero (2022) found that some students take over seven years to complete doctoral programs due to inconsistent supervision. Kenya's Higher Education Loans Board (HELB) provides limited financial support for postgraduate students. Unlike global models where state funding is extensive, only 30% of Kenyan postgraduates receive financial assistance, affecting retention rates (HELB, 2023). Policy reforms

have introduced structured coursework components in doctoral programs, aimed at improving completion rates. However, administrative delays in thesis approvals continue to affect graduation timelines (CUE, 2023).

While Health Sciences postgraduate programs in Kenya have seen a 15% increase in enrollment over the past decade, but completion rates remain low at 50% due to research funding challenges and limited laboratory resources (CUE, 2024). Programs at the University of Nairobi and Moi University have implemented mentorship initiatives, but inadequate clinical placement opportunities hinder timely completion (Ministry of Health, 2023). Health Sciences students rely on external grants, but inconsistent government support impacts research continuity. Unlike developed countries, where postgraduate research is well-funded, Kenya lags in structured research funding (World Health Organization, 2023).

Therefore, the researcher echoes that Kenya's postgraduate education policies significantly impact completion rates. While some progress has been made through structured coursework and mentorship programs, challenges such as inadequate funding, poor supervision, and bureaucratic inefficiencies persist. To improve completion rates, Kenya must benchmark against global best practices, enhance institutional support systems, and increase funding for postgraduate research.

The relationship between existing postgraduate policies and completion rates in Kenya reveals several key understandings. First, while policies that increase financial support and improve quality assurance have contributed to higher completion rates, their impact is limited by economic constraints. Many students still face significant financial challenges, which are exacerbated by rising tuition fees and limited scholarship opportunities (Salmi, 2020).

Second, the focus on stricter quality assurance and accreditation has improved academic standards but has also resulted in administrative bottlenecks. Delays in thesis approvals, coupled with high student-to-supervisor ratios, have extended the duration of postgraduate studies, thereby negatively impacting survival rates (Odebero, 2008). Finally, the impact of institutional reforms is uneven across different universities. Well-resourced institutions with strong administrative support and research infrastructure tend to exhibit higher completion rates, whereas underfunded universities struggle to retain postgraduate students (CUE, 2024).

Supervision policies in Kenyan public universities remain inconsistent, with many students experiencing prolonged waiting periods for feedback from their supervisors (Nganga, 2022). Additionally, research funding policies are inadequate, with most students relying on personal savings to finance their projects. Universities also face bureaucratic delays in thesis examination, where some students wait over six months to receive reviewer feedback, further extending their study periods (Mugenda, 2021). Kenya has developed various policies to govern postgraduate education, encompassing admission criteria, program structures, funding mechanisms, and quality assurance standards (Jones, 2018). These policies are designed to promote access, equity, and academic excellence in postgraduate programs across universities and research institutions. Several factors influence postgraduate completion rates, including academic, financial, and socio-cultural factors. Muthoni and Kariuki (2020) identified academic challenges such as workload and lack of support as significant barriers to completion. Financial constraints, including tuition fees and research costs, also play a critical role (Kiptoo & Kimani, 2018). Additionally, socio-cultural factors such as family responsibilities and cultural expectations may impact students' ability to persist in their studies (Wambui & Nyaga, 2016)

Kenyan universities have implemented various policies to support postgraduate students, including academic supervision, research funding, and student welfare programs. However, the implementation of these policies may vary across institutions, affecting students' experiences and outcomes (Njoroge & Macharia, 2017).

Ogutuu and Mutua (2021) conducted a longitudinal analysis of postgraduate completion rates in Kenya, focusing on the influence of policy changes on student outcomes. Their study utilized statistical methods to analyze data from multiple universities over a ten-year period. Findings revealed a significant correlation between the implementation of supportive policies, such as enhanced academic supervision and research funding, and improved completion rates. However, challenges related to policy implementation consistency and resource allocation were identified as barriers to maximizing policy effectiveness.

Muthoni and Kariuki(2020) conducted qualitative research to explore the experiences of postgraduate students in Kenya and their perceptions of existing policies. Through in-depth interviews and focus group discussions, they identified several policy-related factors influencing completion rates, including access to financial support, quality of academic supervision, and availability of research resources. The study highlighted the importance of aligning policy provisions with students' needs and experiences to enhance completion rates effectively.

Kiptoo and Kimani(2021) examined the implementation of postgraduate support services in Kenyan universities and its impact on completion rates. Their mixed-methods study combined quantitative analysis of institutional data with qualitative understandings from student surveys and interviews. Results indicated that

universities with well-established support services, such as academic advising and research grants, tended to have higher completion rates. However, challenges related to the equitable distribution of resources and the accessibility of support services were identified as areas requiring policy attention.

Njoroge and Macharia (2019) conducted a comparative analysis of postgraduate policies and completion rates across universities in Kenya. Their study involved document analysis of policy documents and statistical analysis of completion data. Findings revealed variations in policy provisions and implementation strategies across institutions, leading to disparities in completion rates. The study emphasized the need for standardized policy frameworks and enhanced collaboration among universities to address systemic challenges and improve completion outcomes.

Wambui and Nyaga(2020) explored the intersection of socio-cultural factors and postgraduate policies in influencing completion rates among female students in Kenya. Their qualitative study employed narrative analysis to examine the lived experiences of female postgraduate students. Results indicated that policy provisions addressing gender equity and cultural sensitivity positively impacted completion rates by addressing barriers such as family responsibilities and cultural expectations. The study underscored the importance of incorporating gender-sensitive and culturally responsive policies in higher education governance.

Study by Kariuki and Mutisya (2021) conducted a mixed-methods study to examine the impact of postgraduate funding policies on completion rates in Kenya. Quantitative analysis of funding disbursement data and completion records revealed a positive association between timely financial support and higher completion rates. Qualitative insights from student interviews provided nuanced understandings of the

challenges faced in accessing and utilizing funding resources, highlighting the importance of equitable distribution and transparent allocation processes.

Research by Mutua et al. (2018), investigated the role of academic supervision policies in shaping postgraduate completion rates in Kenyan universities. Through surveys and interviews with academic supervisors and postgraduate students, they explored the quality of supervision practices, frequency of interactions, and perceived effectiveness of support. Findings highlighted the critical role of supportive supervision in fostering student progress and addressing challenges, emphasizing the need for continuous professional development and mentorship training for supervisors.

Analysis by Ondari and Omollo (2019), conducted a comparative analysis of postgraduate completion rates between urban and rural universities in Kenya. Their study utilized institutional data and student surveys to examine disparities in completion outcomes and identify contributing factors. Results indicated that rural universities faced unique challenges related to infrastructure, faculty resources, and student support services, which adversely affected completion rates. Policy recommendations focused on resource allocation strategies and targeted interventions to address rural-urban disparities.

Study by Kamau and Mwangi (2020), examined the influence of research support policies on postgraduate completion rates in selected Kenyan universities. Through document analysis and interviews with university administrators, they assessed the availability of research grants, access to library resources, and institutional support for scholarly activities. Findings revealed a positive correlation between robust research support mechanisms and higher completion rates, highlighting the

importance of investing in research infrastructure and capacity-building initiatives.

Research by Gitau and Kiambati (2017), investigated the impact of student support services policies on postgraduate completion rates, with a focus on counseling and psychological support. Their study employed surveys and focus group discussions to assess students' experiences and perceptions of support services. Results indicated that access to counseling services, career guidance, and mental health support positively influenced student well-being and academic progress, ultimately contributing to higher completion rates.

Study by Nyamweya and Orina (2018), conducted a longitudinal study to examine the effects of policy changes in admission criteria on postgraduate completion rates. Using archival data and regression analysis, they assessed the impact of shifts in admission requirements, such as standardized testing and GPA thresholds, on student outcomes. Findings revealed nuanced effects on completion rates, suggesting the need for ongoing evaluation and refinement of admission policies to balance access and academic rigor.

Analysis by Kamotho and Macharia (2019), investigated the relationship between policy interventions aimed at improving postgraduate program quality and completion rates. Their study employed a mixed-methods approach, combining institutional data analysis with stakeholder interviews and focus groups. Results highlighted the importance of curriculum review, accreditation processes, and faculty development initiatives in enhancing program quality and student outcomes.

Research by Nyaga and Waweru (2016), examined the impact of flexible learning policies on postgraduate completion rates, particularly for non-traditional students such as working professionals and part-time learners. Through surveys and case

studies, they assessed the effectiveness of distance education programs, evening classes, and online learning platforms in accommodating diverse student needs and promoting timely completion. Findings underscored the importance of flexibility in program delivery and scheduling to facilitate access and retention.

Study by Mwangi and Karimi (2020), investigated the influence of policy initiatives aimed at promoting interdisciplinary research and collaboration on postgraduate completion rates. Using bibliometric analysis and qualitative interviews with faculty members and research administrators, they assessed the uptake of interdisciplinary approaches and their impact on student engagement and academic outcomes. Results suggested that interdisciplinary research opportunities enhanced student learning experiences and contributed to higher completion rates.

Health Sciences is a critical area of study in Kenya, as it directly impacts public health, clinical research, and healthcare delivery. Postgraduate programs in this field have expanded significantly, driven by increased government investment and a growing demand for advanced healthcare professionals. However, completion rates in Health Sciences remain suboptimal due to challenges such as inadequate research funding, limited clinical training facilities, and high attrition rates (Ministry of Health, 2023). Health Sciences programs are particularly affected by institutional factors. Universities such as the University of Nairobi and Kenyatta University have implemented mentorship programs and structured coursework to improve completion rates. Nevertheless, high costs, insufficient laboratory facilities, and limited access to quality supervision continue to impede timely graduation (Mwiria *et al.*, 2019). Policy gaps, such as the lack of targeted research funding for Health Sciences and bureaucratic delays in program approvals, further exacerbate these issues.

Scholars and educational researchers have consistently emphasized that postgraduate completion rates are a sensitive indicator of the overall health of higher education systems. Marginson (2021) argues that high attrition rates reflect systemic deficiencies in academic support, funding, and quality assurance. In the Kenyan context, Odebero (2008) found that while policy reforms have improved certain aspects of postgraduate education, issues such as excessive administrative delays and insufficient funding persist, ultimately affecting student outcomes.

Researchers also note that while global trends in postgraduate education are promising, the challenges faced by African institutions are unique. Salmi (2020) highlights that the financial burdens imposed by rising tuition fees and limited scholarship opportunities are more acute in African universities, leading to lower retention and completion rates compared to developed nations. Furthermore, sociocultural factors—such as family obligations and gender disparities—compound these challenges, particularly in specialized fields like Health Sciences (Boni & Walker, 2021).

To improve postgraduate completion rates, particularly in Kenya, there is a need for more robust financial support mechanisms. Increasing government funding, expanding scholarship programs, and revising tuition fee structures are essential steps. Policymakers should prioritize targeted financial aid for high-demand fields, such as Health Sciences, to reduce the financial burden on students (Salmi, 2020). Investing in modern research facilities and reducing student-to-supervisor ratios can significantly enhance retention. Universities should focus on upgrading laboratories, libraries, and digital resources, as well as implementing effective mentorship programs. Such investments would not only improve academic outcomes but also reduce the time required to complete postgraduate studies (Mwiria *et al.*, 2019).

Reducing bureaucratic inefficiencies is critical for ensuring timely degree completion. Implementing digital administrative systems can streamline processes such as thesis approvals, course registration, and academic monitoring. Such reforms would minimize delays and alleviate the administrative burdens that currently contribute to lower completion rates (CUE, 2022).

International partnerships and joint degree programs can provide access to advanced research facilities and diversified funding sources. Collaboration with global institutions can help bridge the gap between local resource constraints and international best practices, thereby improving retention and survival rates (Zhao & Mok, 2023). Policy initiatives must also address sociocultural factors that influence postgraduate education. Developing support programs tailored to the needs of diverse student groups, particularly women and those from underrepresented backgrounds, can help mitigate attrition caused by familial and societal pressures (Boni & Walker, 2021).

Therefore, the researcher echoes that while advanced economies benefit from well-funded and efficiently managed educational systems, many African institutions face significant challenges that hinder student retention and timely graduation. In Kenya, despite various policy reforms and increased enrollment, completion rates remain suboptimal due to financial constraints, infrastructural inadequacies, and administrative delays. Specific fields, such as Health Sciences, highlight these issues in greater detail, underscoring the urgent need for comprehensive policy reforms and targeted investments. Moving forward, policymakers, educational institutions, and international partners must collaborate to enhance financial support, modernize research infrastructure, streamline administrative processes, and address sociocultural

barriers. Such complex interventions are essential for ensuring that the growth in postgraduate enrollment translates into meaningful academic and professional outcomes, thereby contributing to the broader goals of national development and global competitiveness.

Research by Gathura and Mwenda (2018), explored the relationship between policy provisions for internationalization and postgraduate completion rates in Kenyan universities. Through institutional case studies and surveys of international students, they examined the effects of international partnerships, exchange programs, and multicultural initiatives on student integration and academic success. Findings indicated that internationalization policies positively influenced completion rates by promoting diversity, global perspectives, and cross-cultural collaboration. Despite existing research on postgraduate policies and completion rates, gaps remain in understanding how governance structures impact student progression in Kenya's public universities. While studies have examined supervision challenges, funding constraints, and thesis examination inefficiencies, limited research specifically links governance policies to completion rates.

### **2.2.5 Factors influencing governance structures of postgraduate students' graduation in public universities in Kenya.**

Postgraduate education is widely recognized as a critical driver of national development, research innovation, and economic competitiveness. Public universities play a pivotal role in delivering advanced education, yet they face countless challenges that affect student retention and completion. Governance—the processes, policies, and administrative systems that underpin the operation of postgraduate programs—is a key determinant of success.

Globally, one of the most significant challenges to effective postgraduate governance is the rising cost of education. Many countries, including those in North America and Europe, have witnessed escalating tuition fees, which place a considerable financial burden on students. Despite robust financial aid systems in these regions, increased costs have led to prolonged study durations and higher dropout rates (Salmi, 2020; OECD, 2022). In contrast, developing nations often rely on limited government subsidies and scarce scholarship opportunities, exacerbating the financial strain on postgraduate students (UNESCO, 2021). The economic environment plays a decisive role in determining retention and completion; robust funding models can support timely graduation, while insufficient financial support leads to attrition (Marginson, 2021).

Global higher education systems have increasingly implemented quality assurance and accreditation mechanisms to maintain academic standards. In countries with well-established quality control processes, such as the United Kingdom and Germany, stringent accreditation standards have led to high postgraduate completion rates (Altbach & de Wit, 2020). However, the rigorous nature of these processes can sometimes introduce administrative delays and increase the burden on students and faculty alike (Odebero, 2008). As institutions struggle to meet international benchmarks, the resulting bureaucratic inefficiencies may delay thesis approvals and prolong degree completion times, adversely affecting overall survival rates (OECD, 2022).

Effective governance depends on streamlined administrative processes that facilitate smooth academic progression. However, in many countries, complex bureaucratic procedures—such as those related to course registration, thesis submission, and

examination scheduling—result in prolonged study durations (Odebero, 2008). Administrative delays are a common source of frustration for postgraduate students, and research has shown that institutions with cumbersome processes typically exhibit lower retention and survival rates (Marginson, 2021). Globally, efforts to digitize administrative functions are underway, but the pace of implementation remains uneven across regions (UNESCO, 2021).

Technological advancements have transformed the delivery of postgraduate education, with many institutions now incorporating online and blended learning models. However, while digital platforms have expanded access to education, challenges in technological infrastructure persist. In developed countries, widespread internet connectivity and state-of-the-art digital libraries support academic progress. Conversely, in regions with limited digital infrastructure, students often struggle with connectivity issues that disrupt learning (Huang *et al.*, 2022). These technological disparities contribute significantly to global differences in retention and completion rates.

The cultural context in which postgraduate education is delivered also plays an important role. In many Western countries, a strong culture of academic excellence and a high societal value placed on advanced degrees encourage persistence. However, global trends indicate that even in high-income regions, pressures such as academic stress, work-life balance, and mental health issues contribute to student attrition (Marginson, 2021). In addition, demographic factors—including gender disparities and socioeconomic backgrounds—further influence retention. For instance, research by Boni and Walker (2021) shows that female postgraduate students, especially in STEM fields, face unique challenges that can negatively impact

their survival rates.

One of the most significant governance challenges in postgraduate education is the ineffective supervision system. In many public universities, postgraduate students struggle with irregular access to their supervisors, delayed feedback, and inadequate academic guidance. According to Mwirigi et al. (2019), in Kenya, approximately 40% of postgraduate students experience delays due to poor supervision. Many supervisors are burdened with heavy teaching loads and administrative responsibilities, limiting their availability for postgraduate mentorship. Additionally, in some cases, there is a mismatch between student research interests and supervisor expertise, further complicating the research process.

To improve postgraduate governance, universities need to implement structured supervision policies, such as regular progress meetings, co-supervision models, and mentorship programs. Institutions in developed countries like the United Kingdom and Australia have adopted structured supervision guidelines, which have contributed to higher completion rates (Higher Education Academy, 2020).

Postgraduate education in public universities is largely self-sponsored, with limited government scholarships and research grants. Financial constraints are a major governance issue, as they directly impact student progression and completion rates. A study by Mutisya and Mutunga (2021) found that 65% of postgraduate students in Kenya face financial difficulties, leading to prolonged study durations or dropout. Without sufficient funding, students struggle to pay tuition fees, conduct research, and access academic resources.

In contrast, postgraduate governance in countries such as Germany and Canada includes strong financial support systems, including research stipends, assistantships, and grants (National Science Foundation, 2021). Strengthening funding policies through increased government investment, scholarships, and external research grants would improve postgraduate education governance and completion rates in public universities.

Administrative inefficiencies in public universities create significant obstacles for postgraduate students. The processes involved in admission, proposal approvals, ethical clearance, and thesis examination are often slow and bureaucratic. Oluoch (2020) found that in Kenyan universities, the average time for thesis examination ranges from six months to over a year, due to delays in appointing examiners and processing reports. These inefficiencies discourage students and contribute to prolonged completion times.

Governance reforms should focus on streamlining administrative processes by adopting digital thesis submission, strict deadlines for thesis review, and automated tracking systems for student progress. Some universities in developed countries have implemented electronic submission and review systems, reducing bureaucratic delays and enhancing efficiency (Higher Education Statistics Agency, 2021).

Postgraduate students require access to well-equipped research facilities, including libraries, laboratories, and online academic resources. However, many public universities in developing countries struggle with inadequate research infrastructure. According to Cloete et al. (2020), in South African universities, a lack of advanced research facilities negatively affects postgraduate research output. In Kenya, many students rely on personal funding to access research materials, contributing to delays

and substandard research quality.

Effective postgraduate governance should prioritize investments in research infrastructure, including digital libraries, well-equipped laboratories, and access to international research collaborations. Expanding partnerships with international institutions and funding agencies would also enhance research opportunities for postgraduate students.

Postgraduate education governance in many public universities is often hindered by inconsistent policies on admissions, supervision, research funding, and thesis examination. Universities operate under different frameworks, leading to variations in completion rates and academic experiences among postgraduate students. For instance, some institutions enforce strict deadlines for research proposals and thesis submissions, while others have flexible timelines that lead to extended study periods.

Standardizing postgraduate governance policies across universities would improve consistency and efficiency in program administration. Countries such as the United Kingdom and Australia have national postgraduate education frameworks that ensure uniformity in policies, resulting in better student outcomes (Council of Graduate Schools, 2020). Implementing a national postgraduate education policy in Kenya would create a more structured governance system and enhance completion rates.

Postgraduate students often face academic stress, mental health challenges, and work-life balance difficulties. However, most public universities lack structured student support services to address these issues. Mwangi (2020) found that 30% of postgraduate students in Kenya drop out due to psychological stress and lack of institutional support. Developed countries have integrated mental health counseling, academic writing support, and peer mentorship programs into postgraduate

governance structures, leading to improved retention and completion rates (National Science Foundation, 2021).

To strengthen postgraduate governance, universities should establish postgraduate student support services, including career counseling, research workshops, and mental health programs. Such initiatives would improve student well-being and academic success.

Governance of postgraduate education is a critical issue worldwide, with institutions facing challenges related to supervision quality, funding, research infrastructure, and policy implementation. According to Altbach and Salmi (2019), postgraduate education in many developed countries, such as the United States, Canada, and the United Kingdom, is characterized by well-structured governance frameworks, with clear policies on research funding, supervision, and quality assurance. However, even in these nations, concerns such as rising tuition costs and the commercialization of postgraduate education impact completion rates.

While developing countries face more severe governance challenges. Studies indicate that in regions such as South Asia and Latin America, governance inefficiencies, lack of adequate research funding, and political interference negatively affect the quality and effectiveness of postgraduate education (Teferra & Altbach, 2020).

African nations have made significant strides in expanding higher education over the past two decades. Enrollment in postgraduate programs has grown steadily, yet the continent still faces considerable challenges that hinder retention and timely graduation. According to UNESCO (2021), while African universities have increased enrollment by an average of 4% per year, retention and survival rates remain substantially lower than in developed regions. Economic constraints, inadequate

research facilities, and inconsistent policy implementation are prevalent issues that shape the educational landscape.

In many African countries, public universities operate with limited government funding. The reliance on tuition fees as a primary revenue source often results in high financial burdens on students, leading to lower retention rates (Salmi, 2020). For instance, in Nigeria and Tanzania, the lack of sustainable funding models has been linked to dropout rates exceeding 30% in some postgraduate programs (World Bank, 2022). Regional funding initiatives exist, but their scope is often insufficient to support the increasing demand for quality postgraduate education.

A significant challenge in Africa is the underinvestment in research infrastructure. Many universities across the continent lack modern laboratories, digital libraries, and other essential research facilities. Mwiria et al. (2019) found that over 60% of postgraduate students in some African institutions reported that inadequate infrastructure severely impeded their academic progress. The disparity in infrastructure between urban and rural institutions further exacerbates these challenges, leading to significant variations in retention and completion rates across the continent.

Bureaucratic delays and inefficient administrative processes are common in African higher education institutions. Complex and often outdated systems for academic registration, thesis submission, and examination scheduling contribute to extended study durations and high dropout rates (Odebero, 2008). Many African universities have yet to fully adopt digital administrative systems, which could significantly streamline processes and improve student outcomes (UNESCO, 2021).

Across Africa, postgraduate education governance is marred by inadequate policies, weak research infrastructure, and financial constraints. In South Africa, for instance, while universities have structured postgraduate programs, student retention and completion rates remain a challenge due to funding gaps and supervision challenges (Cloete, 2021). Similarly, in Nigeria, issues such as poor mentorship, administrative delays, and inconsistent funding policies contribute to prolonged study periods for postgraduate students (Okebukola, 2021).

Cultural factors also play a crucial role in the retention of postgraduate students in Africa. In many African societies, postgraduate education is highly valued; however, students often face family pressures, gender biases, and societal expectations that may lead to stress and attrition. Research indicates that in regions where gender disparities persist, female postgraduate students are particularly vulnerable to dropout due to additional familial responsibilities and cultural norms (Boni & Walker, 2021).

In East Africa, universities in Uganda and Tanzania face similar governance issues. Research by Oanda and Jowi (2022) highlights that governance inefficiencies in postgraduate education in these countries result from a lack of standardized policies on supervision and research, leading to high completion rates. Additionally, political interference in university leadership often disrupts long-term governance reforms.

In Kenya's public universities, specific institutions face unique governance challenges. For instance, in institutions such as the University of Nairobi, Kenyatta University, and Moi University, administrative delays in thesis approvals and lack of clear supervision guidelines have been reported as major challenges. Additionally, some institutions have policies that allow students to extend their research indefinitely without strict monitoring, leading to low completion rates (CUE, 2023). One of the

most significant challenges is the inadequate funding allocated to postgraduate programs. Limited financial resources constrain the ability of universities to provide sufficient scholarships, research grants, and stipends for postgraduate students. Kariuki and Mutisya (2021) highlight that the scarcity of funding leads to prolonged study periods as students struggle to finance their research projects and academic expenses, adversely affecting completion rates.

The lack of adequate research infrastructure, including well-equipped laboratories, libraries, and access to up-to-date digital resources, poses a significant barrier to effective postgraduate education. According to Kamau and Mwangi (2020), the inadequacy of research facilities limits students' ability to conduct high-quality research, thereby impacting their academic progress and the overall quality of postgraduate programs.

Effective academic supervision is crucial for the successful completion of postgraduate studies. However, many universities in Kenya face challenges related to the quality and availability of academic supervisors. Mutua et al. (2018) note that high student-to-supervisor ratios, lack of mentorship training for supervisors, and inconsistent supervision practices undermine the academic guidance and support that postgraduate students receive, resulting in delays and completion.

Kenya's higher education system has undergone significant reforms over the past decade, largely driven by the Commission for University Education (CUE). These reforms have aimed to improve quality through stricter accreditation standards, cost-sharing models, and enhanced supervision mechanisms. Despite these efforts, the implementation has been inconsistent. Data from CUE (2024) indicate that while postgraduate enrollment has increased, completion rates have fluctuated—averaging

between 55% and 65%—suggesting that current policies have not fully addressed the systemic challenges (Odebero, 2008).

The cost of postgraduate education in Kenya has risen steadily, exacerbated by cost-sharing policies that shift more financial responsibility onto students. According to HELB (2023), only a minority of postgraduate students receive adequate financial aid, leaving many to rely on self-funding or external loans. This financial strain is a primary contributor to lower retention and completion rates (Salmi, 2020). The limited availability of scholarships and research grants further compounds the issue, creating a significant barrier to academic success.

Kenyan public universities face notable challenges in terms of research infrastructure and faculty resources. High student-to-supervisor ratios limit the quality of academic guidance available to postgraduate students, leading to extended study durations and higher attrition rates (Mwiria *et al.*, 2019). Many institutions report outdated research facilities and limited access to digital resources, which hinder the ability of students to conduct high-quality research and complete their programs in a timely manner (Odebero, 2008).

Administrative inefficiencies are a recurrent theme in Kenyan higher education governance. Bureaucratic delays in thesis approvals, course registrations, and examination scheduling are common, significantly affecting postgraduate students' ability to complete their studies on time (CUE, 2022). The rigidity of administrative processes often forces students to extend their study periods, thereby lowering overall completion rates.

Sociocultural factors also influence postgraduate completion in Kenya. While advanced degrees are highly valued, students often face conflicting societal and familial expectations that can lead to stress and attrition. Gender disparities are particularly evident, as female students frequently confront additional challenges related to balancing academic responsibilities with family obligations (Boni & Walker, 2021).

Health Sciences is a critical field that directly influences public health, clinical research, and healthcare delivery in Kenya. Postgraduate programs in this area have expanded significantly, driven by government initiatives to strengthen the healthcare sector. However, these programs face unique challenges that affect completion rates, such as the need for extensive clinical training, specialized laboratory facilities, and industry-specific research funding (Ministry of Health, 2023).

Data from CUE (2024) reveal that while postgraduate enrollment in Health Sciences increased by approximately 15% between 2015 and 2020, completion rates have remained relatively low, averaging around 50%. This is partly due to the demanding nature of clinical and research components in Health Sciences programs, which require access to advanced facilities and experienced supervisors. A significant portion of students reported delays in completing their degrees due to the high cost of clinical training and the scarcity of research grants, leading to prolonged study durations and higher attrition rates (Mwiria *et al.*, 2019).

Despite various policy reforms aimed at improving postgraduate education in Kenya, Health Sciences programs have not fully benefited from these measures. The allocation of research funding in Health Sciences remains uneven, and many institutions struggle with the integration of practical clinical training into the academic

curriculum. Administrative delays, such as lengthy thesis approvals and inefficient scheduling of clinical rotations, further contribute to the lower completion rates observed in this field (Odebero, 2008). Addressing these issues requires targeted policy interventions and increased investment in specialized research infrastructure.

Scholars consistently highlight that the governance of postgraduate education is a critical determinant of student success. Marginson (2021) argues that high dropout rates are symptomatic of systemic deficiencies in financial support, supervision, and administrative processes. In Kenya, researchers have observed that while policy reforms have raised academic standards, they have also introduced complexities that hinder student progress (Odebero, 2008).

Recent studies have pointed out that economic constraints are among the most significant factors affecting postgraduate completion. Salmi (2020) contends that rising tuition fees and inadequate financial aid contribute substantially to lower retention rates. Similarly, Mwiria et al. (2019) emphasize that infrastructural deficits—particularly in research facilities—play a decisive role in prolonging postgraduate studies. Researchers also note that while digital transformation offers promise, uneven implementation of technology in administrative processes and classroom learning creates disparities in student outcomes (Huang *et al.*, 2022).

In the specific context of Health Sciences, the challenges are further compounded by the high costs associated with clinical training and the rapid evolution of medical research technologies. As highlighted by the Ministry of Health (2023), inadequate funding for research and limited access to state-of-the-art facilities remain critical barriers to timely graduation. Researchers call for a more integrated approach that combines policy reform, increased funding, and improved supervision to enhance

completion rates (Zhao & Mok, 2023).

To address financial constraints, governments and institutions must increase funding for postgraduate education. Expanding scholarship programs, revising tuition fee structures, and enhancing government subsidies are crucial for alleviating the financial burden on students (Salmi, 2020). These reforms should be particularly targeted at fields like Health Sciences, where the costs of clinical training and research are significantly higher. Investments in modern research facilities, digital libraries, and advanced laboratories are essential for improving postgraduate outcomes. Reducing student-to-supervisor ratios through targeted faculty recruitment and training programs can also improve supervision quality, thereby reducing study duration and attrition (Mwiria *et al.*, 2019). Institutions should adopt best practices from global models to modernize their infrastructure and administrative processes.

Adopting digital administrative systems can significantly reduce bureaucratic delays that impede postgraduate progress. Online thesis submission systems, digital course registration, and automated academic monitoring can streamline processes and ensure that students complete their studies in a timely manner (CUE, 2022). Simplified administrative procedures are vital for enhancing overall retention and survival rates. International partnerships can play a pivotal role in enhancing postgraduate education. Joint degree programs, research collaborations, and student exchange initiatives provide access to global resources and expertise, which can improve completion outcomes (Zhao & Mok, 2023). Policies should facilitate greater international engagement to help bridge the gap between local resource constraints and global best practices.

Finally, addressing sociocultural barriers is essential for improving retention rates. Policies aimed at supporting female postgraduate students and marginalized groups—through mentorship programs, flexible academic schedules, and comprehensive mental health services—can reduce attrition and promote equitable academic outcomes (Boni & Walker, 2021). Educational institutions must also work to create a supportive and inclusive academic culture that values diversity and promotes student well-being.

The researcher concurs with other studies and notes that the governance of postgraduate education in public universities is influenced by a complex array of factors at the global, regional, and national levels. Globally, strong financial support systems, quality assurance mechanisms, and efficient administrative processes contribute to higher completion rates. In contrast, many African institutions, including those in Kenya, continue to face significant challenges such as limited funding, infrastructural deficits, bureaucratic delays, and sociocultural barriers. These challenges are particularly acute in specialized fields like Health Sciences, where the demands of practical training and research further exacerbate the issues.

Addressing these challenges requires coordinated efforts from policymakers, educational institutions, and international partners. Increased financial support, modernization of research infrastructure, streamlined administrative processes, and targeted interventions to address sociocultural disparities are essential for improving postgraduate retention and survival rates. Future reforms must prioritize a holistic approach that not only enhances academic quality but also supports students throughout their educational journey, ensuring that rising enrollments translate into successful, timely graduation.

One of the most prevalent issues in Kenyan postgraduate governance is the financial burden placed on students. Public universities in Kenya rely significantly on tuition fees due to limited government subsidies. The introduction of cost-sharing policies has further increased the financial obligations of postgraduate students, making it difficult for many to complete their studies on time (Salmi, 2020). Data from the Commission for University Education (CUE, 2024) indicate that only a minority of postgraduate students receive adequate scholarships or research grants, resulting in high dropout rates and extended study durations. The financial constraints not only affect students' ability to sustain their studies but also limit universities' capacity to invest in necessary research infrastructure and quality assurance mechanisms.

Administrative and bureaucratic hurdles represent a significant challenge to effective postgraduate governance in Kenya. Complex processes for course registration, thesis submission, and examination scheduling have been cited as major factors contributing to prolonged study periods and increased attrition (Odebero, 2008). Many postgraduate students report that delays in administrative procedures, including the clearance of academic requirements, lead to frustration and demotivation. The lack of digitalization in many administrative functions further exacerbates these issues, as manual processes are more prone to error and inefficiency. Despite attempts to streamline these processes, inconsistencies in policy implementation across different institutions continue to hinder timely student progression (CUE, 2022).

Effective supervision is crucial for postgraduate success, yet many Kenyan universities struggle with high student-to-supervisor ratios. Limited availability of experienced faculty results in inadequate mentorship, which is essential for guiding students through complex research projects. Studies have shown that poor supervision

is directly linked to delays in thesis completion and lower overall survival rates (Mwiria *et al.*, 2019). In addition, research infrastructure—such as laboratories, libraries, and access to digital resources—remains underdeveloped in many institutions. This lack of modern facilities undermines the quality of research, leaving postgraduate students without the necessary tools to conduct advanced studies. These infrastructural deficiencies not only affect academic performance but also diminish the global competitiveness of Kenya’s postgraduate programs.

Kenya’s higher education system has undergone several reforms aimed at improving postgraduate education governance. The Commission for University Education (CUE) has introduced policies to enhance quality assurance, accreditation standards, and academic supervision (CUE, 2022). However, these reforms have produced mixed results. While they have elevated academic standards, the inconsistent implementation of these policies across different institutions has led to administrative bottlenecks. For instance, rigorous quality assurance processes, while intended to improve research output, have sometimes resulted in extended delays in thesis approvals and academic evaluations, negatively impacting completion rates (Odebero, 2008). This tension between maintaining high academic standards and ensuring efficient administrative processes remains a critical challenge.

Sociocultural factors also play an influential role in the governance of postgraduate education. In Kenya, postgraduate studies are highly valued; however, cultural expectations and family responsibilities can impose significant stress on students. Gender disparities persist, particularly in fields such as STEM and Health Sciences, where female students often face additional pressures to balance academic demands with familial obligations (Boni & Walker, 2021). Furthermore, societal attitudes

towards prolonged study durations or non-traditional career paths can lead to stigmatization, further discouraging students from pursuing or completing postgraduate studies. These cultural barriers highlight the need for tailored support systems that address the unique challenges faced by diverse student populations.

Technological advancements have the potential to transform postgraduate governance through online learning platforms and digital administrative systems. However, uneven digital infrastructure in Kenya poses a significant challenge. While urban universities may have access to advanced digital resources, many institutions in rural areas struggle with poor internet connectivity and limited access to digital devices (Huang *et al.*, 2022). These technological disparities hinder the implementation of effective online supervision, digital thesis submission systems, and overall efficient academic management. Consequently, the lack of robust digital infrastructure contributes to prolonged study durations and lower retention rates, particularly among students in resource-constrained environments.

The broader economic and political context in Kenya also affects the governance of postgraduate education. Economic downturns, such as those experienced during the COVID-19 pandemic, have led to reduced government funding and financial support for higher education, thereby exacerbating the challenges faced by postgraduate students (World Bank, 2022). Political instability and shifts in policy priorities can further disrupt funding allocations and institutional planning, leading to fluctuations in postgraduate completion rates. These external factors underscore the importance of developing resilient education policies that can withstand economic and political uncertainties.

Researchers have critically examined the governance challenges in Kenyan postgraduate education, often pointing to systemic issues that hinder student success. Marginson (2021) argues that high dropout rates are symptomatic of broader institutional deficiencies, including inadequate financial support and poor supervisory practices. Odebero (2008) highlights that while policy reforms have improved academic standards, the resultant administrative complexities have inadvertently extended the duration of postgraduate studies. Salmi (2020) further contends that without significant financial reforms, the rising costs associated with postgraduate education will continue to be a major barrier to student retention and completion.

These critical perspectives highlight the need for a holistic approach to governance reform in postgraduate education. Therefore, the Researcher advocates for increased investment in digital infrastructure, enhanced faculty development programs, and streamlined administrative procedures to address the multifaceted challenges currently affecting Kenyan public universities.

To improve the governance of postgraduate education and boost completion rates, several key policy recommendations emerge: Enhanced Financial Support: Increasing government funding, expanding scholarship programs, and developing innovative funding models can alleviate the financial burden on postgraduate students (Salmi, 2020). Modernizing Research Infrastructure: Investing in state-of-the-art laboratories, digital libraries, and online academic resources is critical for supporting high-quality research and improving student retention (Mwiria *et al.*, 2019).

Streamlining Administrative Processes: Implementing digital administrative systems to reduce bureaucratic delays in thesis submission, course registration, and academic monitoring can significantly improve efficiency (CUE, 2022). Strengthening Faculty

and Supervision: Reducing student-to-supervisor ratios through targeted recruitment and enhanced training for academic staff can improve mentorship quality and support timely graduation (Odebero, 2008).

Addressing Sociocultural Barriers: Developing support programs that address gender disparities, family responsibilities, and mental health needs can help mitigate the social pressures that contribute to dropout rates (Boni & Walker, 2021). Leveraging Technology: Expanding digital infrastructure and adopting blended learning models can help bridge the gap between urban and rural institutions, ensuring equitable access to postgraduate education (Huang *et al.*, 2022).

While Kenya has developed various policies to govern postgraduate education, there are significant gaps in policy implementation. Ondari and Omollo (2019) found that discrepancies between policy provisions and their practical application across different universities lead to inconsistencies in student experiences and outcomes. These gaps can be attributed to a lack of coordination, oversight, and accountability mechanisms within the governance structures.

Postgraduate students often encounter bureaucratic obstacles that hinder their academic progress. These include lengthy administrative processes for thesis approval, research permit acquisition, and examination scheduling. Gitau and Kiambati (2017) emphasize that such bureaucratic inefficiencies create unnecessary delays and frustrations for students, negatively impacting their motivation and completion timelines.

Socio-cultural factors, including gender biases and family responsibilities, pose additional challenges for postgraduate students, particularly women. Wambui and Nyaga (2016) highlight that cultural expectations and domestic obligations can

impede students' ability to focus on their studies, leading to higher dropout rates and extended study periods. Addressing these socio-cultural barriers requires the development of supportive policies that promote gender equity and work-life balance.

The availability and quality of student support services, such as counseling, career guidance, and academic advising, are often insufficient in Kenyan universities. Nyaga and Waweru (2016) found that the lack of comprehensive support services negatively impacts students' mental health, well-being, and academic performance, further exacerbating the challenges they face in completing their programs.

Political and institutional instability, including frequent changes in university leadership and governance structures, can disrupt the continuity and effectiveness of postgraduate education policies. Mwangi and Karimi (2020) argue that such instability undermines long-term planning and the consistent implementation of strategies aimed at improving postgraduate education.

In the digital age, access to modern technology and online learning platforms is essential for postgraduate education. However, many public universities in Kenya face technological challenges, including limited internet access, outdated computer systems, and inadequate digital literacy among students and faculty (Gathura & Mwenda, 2018). These challenges hinder the integration of technology into teaching and research activities, affecting the overall quality of education.

International collaboration and exchange programs are vital for enhancing the quality of postgraduate education through exposure to global research standards and practices. However, Nyamweya and Orina (2018) note that Kenyan universities often have limited opportunities for international partnerships, which restricts students' access to diverse academic networks and resources. Enhancing international

collaboration can provide valuable learning experiences and improve the global competitiveness of Kenyan postgraduate programs.

### **2.3 Chapter summary**

This chapter explored the existing literature on graduate school governance structures and their influence on postgraduate students' completion rates in public universities in Kenya. The chapter reviewed empirical studies that highlighted governance factors affecting postgraduate education, including enrollment trends, retention, supervision quality, institutional policies, and administrative efficiency. The literature highlights the role of governance structures in shaping postgraduate students' academic experiences and determining their timely completion. Studies reveal that weak governance frameworks, characterized by inconsistent policies, inadequate supervision, and financial constraints, contribute to low completion rates. Additionally, the chapter examines postgraduate enrollment trends in Kenyan public universities from the year 2015 to the 2024, identifying a significant increase in student admissions but a persistent challenge in completion within the expected timeframes.

## CHAPTER THREE

### RESEARCH METHODOLOGY

#### 3.1 Introduction

This chapter presents the research methodology that the study utilized under the following subsections: Research design, location of the study, the study population, sampling techniques, research instruments, validity, and reliability procedure for data collection and data analysis.

#### 3.2 Research Design

This study adopted a mixed-methods research design, as outlined by Creswell and Plano Clark (2017), which involves the integration of both quantitative and qualitative research approaches to comprehensively examine a research problem. The mixed-methods approach was particularly suitable for this study because it allowed for a comprehensive investigation into the complex and multidimensional relationship between graduate school governance structures and postgraduate students' completion rates in Kenyan public universities. Governance in higher education involves both measurable elements—such as policy implementation rates, student completion statistics, and funding levels—and qualitative aspects like institutional culture, leadership practices, and stakeholder experiences. According to Creswell (2017), mixed-methods research facilitates the collection and analysis of both numeric and narrative data within a single study or across multiple phases, allowing researchers to capitalize on the strengths of each method while offsetting their individual limitations. In the context of this study, the use of a mixed-methods design allows for a holistic investigation into the relationship between governance structures and postgraduate students' completion rates in Kenyan public universities.

This approach enables the researcher to explore potential causal patterns and relationships without manipulating variables. The adoption of this methodological approach is also strongly supported in the literature. Mixed-methods research has been increasingly utilized in higher education governance studies due to its ability to address complex and multidimensional phenomena. Johnson, Onwuegbuzie, and Turner (2007) argue that this design enables a deeper exploration of both observable patterns and the contextual or experiential dimensions of institutional processes. Tight (2019) further emphasizes the value of methodological pluralism in higher education research, particularly when investigating policy and governance-related issues. In African contexts, Asefa and Assefa (2020) demonstrated the utility of mixed-methods in studying governance challenges within Ethiopian universities. Similarly, Oanda, Chege, and Wesonga (2008) applied a mixed-methods approach to explore governance reforms in Kenyan higher education, highlighting how both statistical and qualitative data were essential in understanding institutional realities. Additionally, global organizations such as the World Bank (2018) have adopted mixed-methods strategies in evaluating higher education performance, combining statistical analyses with stakeholder narratives to derive actionable insights. These precedents reinforce the suitability of mixed-methods for the current study, which aims to bridge governance theory with empirical realities affecting postgraduate completion. Thus, the choice of a mixed-methods research design in this study is both methodologically justified and supported by a growing body of scholarly literature, ensuring that the investigation is both rigorous and contextually relevant.

### **3.3 Study Area**

This study was conducted in public universities across Kenya, with a particular focus on institutions located in Western Kenya, such as Moi University, Masinde Muliro

University of Science and Technology, Maseno University, and Jaramogi Oginga Odinga University of Science and Technology. This region provides a strategic and contextually rich setting for investigating the relationship between graduate school governance structures and postgraduate students' completion rates.

Western Kenya is characterized by a mix of urban and rural populations, with agriculture being the dominant economic activity. Many households engage in small-scale farming of crops like maize, sugarcane, and beans, alongside livestock keeping. However, despite its agricultural potential, the region experiences relatively high poverty levels, with significant income disparities and unemployment rates, especially among youth and recent graduates. These socio-economic conditions can directly influence students' ability to complete postgraduate studies, particularly where financial strain affects continuity and academic focus.

The region also demonstrates variation in the availability and quality of educational infrastructure and social amenities. While some public universities are well-established with advanced academic resources and facilities, others still struggle with inadequate lecture halls, poor internet connectivity, and under-resourced libraries. Such disparities may affect both the learning environment and the quality of academic support services offered to postgraduate students.

In terms of demographic characteristics, Western Kenya is home to diverse ethnic communities, each with distinct cultural values that influence attitudes toward education, leadership, and institutional engagement. This cultural diversity presents both opportunities and challenges for graduate school governance, as it requires the adaptation of inclusive governance models that reflect the needs of a heterogeneous student population.

The rationale for choosing public universities in this region stems from both its institutional density and the researcher's familiarity with the area. The presence of multiple universities enhances the diversity and representativeness of the sample, while the researcher's proximity to and knowledge of the context allowed for greater access to institutions and participants. According to Singleton (2023), a suitable research site should be not only accessible but also aligned with the researcher's interests to facilitate rapport-building and meaningful data collection.

A study by Mugo and Wambua (2021) on the distribution of public universities in Kenya highlights the presence of multiple universities in Western Kenya, including Moi University, Masinde Muliro University of science and technology, Maseno University, and Jaramogi Oginga Odinga University of Science and Technology. This concentration of universities ensures that the study captures a diverse representation of public higher education institutions, making the findings more generalizable across the country.

The rationale for choosing public universities in Kenya is further supported by the region's specific challenges and opportunities in higher education. The diverse socio-economic background of the student population and the varying levels of resources available to different institutions provide a rich context for examining the factors affecting postgraduate student completion rates. Additionally, the researcher's own interest and knowledge of the area significantly influenced the decision to conduct the study here. According to Singleton (2023), the ideal setting for a study is one that is directly related to the researcher's interest. He further points out that the study area should be easily accessible to the researcher and should allow for immediate rapport with participants.



**Figure 3.1: Map of the study area**

### 3.4 Target Population

The target population of the study included Chairperson of departments (COD), Academic and Students Affairs Registrars (ASA) ,Deans ,Directors ,students representatives and graduate students in all the 39 public Universities in Kenya with a target population of 23,219 respondents as summarized in table 3.1

**Table 3.1 Target population**

S/N	Description	Target Population
1	Graduate students	22,461
2	CODS	386
3	Lecturers	300
4	Dean/Directors	100
5	ASAS	36
6	Student Representatives	36
	<b>Totals</b>	<b>23,319</b>

**Source: CUE (2024)**

### **3.5 Sample Size and Sampling Technique**

#### **3.5.1 Sampling Technique**

A sample size representative of the study population was selected. According to Gall (2020), a representative sample yielded results that was generalized to the study population. The researcher employed a combination of different sampling techniques to select the appropriate sample.

The study utilized purposive sampling, as the researcher deliberately selected participants based on predefined criteria (Oso & Onen, 2018). Since the total number of public universities in Kenya is less than 100 (39 public universities), the researcher used a census approach to select all universities for the study. This ensures comprehensive coverage and inclusion of all relevant institutions in the research. Stratified sampling involved dividing the population into homogeneous subgroups (strata) and then drawing a random sample from each stratum. This technique ensured that different subgroups within the population are adequately represented (Gay, 2017). In this study, the universities were categorized based on factors such as geographical location, size and type of programs offered thus helping to ensure that the diversity within the universities is captured in the sample within each stratum, simple random sampling was used to select respondents. This method ensures that each member of the target population has an equal and independent chance of being included in the sample (Oso & Onen, 2018). This approach helps in eliminating bias and ensuring that the sample is representative of the entire population.

#### **3.5.2 Determination of sample size**

The sample size for the study was determined using Krecjie and Morgan formula (1970) to come up with a sample size as shown below;

$$S = \frac{X^2 NP (1-P)}{d^2 (N-1) + X^2 P (1-P)}$$

Where

S is the desired sample size

X<sup>2</sup> is the table value of chi-square for one degree of freedom at desired confidence level which is 1.96x 1.96= 3.8416

N is the population size

P is the population proportion assumed to be 0.05 since this provided maximum sample size and is the degree of accuracy expressed as a proportion 0.05.

$$S = \frac{3.8416 \times 23219 \times 0.5 (1 - 0.5)}{0.05^2 (23219-1) + 3.8416 \times 0.5(1 - 0.5)} = 435$$

Respondents.

According to Kothari (2015), a representative sample size is one which is at least 10% of the targeted population. The researcher drew a sample size of 435 respondents (n=435). It was arrived at through sampling procedure illustrated in Table 3.2.

Therefore, for sample size of each category was calculated as follows:

$$\text{Graduate students} = \frac{3.8416 \times 22461 \times 0.5 (1 - 0.5)}{0.05^2 (22461-1) + 3.8416 \times 0.5(1 - 0.5)} = 386 \text{ Respondents.}$$

$$\text{CODS} = \frac{3.8416 \times 386 \times 0.5 (1 - 0.5)}{0.05^2 (386-1) + 3.8416 \times 0.5(1 - 0.5)} = 15 \text{ Respondents.}$$

$$\text{Lecturers Respondents.} = \frac{3.8416 \times 300 \times 0.5 (1 - 0.5)}{0.05^2 (300-1) + 3.8416 \times 0.5(1 - 0.5)} = 12$$

$$\text{Dean/Directors} = \frac{3.8416 \times 100 \times 0.5 (1 - 0.5)}{0.05^2 (100-1) + 3.8416 \times 0.5(1 - 0.5)} = 10 \text{ Respondents.}$$

$$\text{Student Reps} = \frac{3.8416 \times 36 \times 0.5 (1 - 0.5)}{0.05^2 (36-1) + 3.8416 \times 0.5(1 - 0.5)} = 6 \text{ Respondents.}$$

$$\text{ASAS} = \frac{3.8416 \times 36 \times 0.5 (1 - 0.5)}{0.05^2 (36-1) + 3.8416 \times 0.5(1 - 0.5)} = 6 \text{ Respondents.}$$

As summarized in Table 3.2

**Table 3.2 Sample size**

S/N	Description	Target Population	Formulae	Sample Proportionate Representation
1	Graduate students	22461	Krecjie and morgan formulae	386
2	CODS	386	Krecjie and morgan formulae	15
3	Lecturers	300	Krecjie and morgan formulae	12
4	Dean/Directors	100	Krecjie and morgan formulae	10
5	Student Reps	36	Krecjie and morgan formulae	6
6	ASAS	36	Krecjie and morgan formulae	6
	Totals	23319	<b>Totals</b>	<b>435</b>

**Source: Clinton (2024)**

### 3.6 Data Collection instruments

The primary data collection instruments were questionnaires, document analysis, and interview schedules, as summarized below.

#### 3.6.1 Questionnaires

This study employed questionnaires to gather data from the respondents, specifically for graduate students' pursuing master's programs and academic and student affairs registrars', consisting of 26 items grouped into three sections: background information, perceptions on the impact of governance structures, and suggestions for improvement. Both closed and open-ended questionnaires were used to ensure a wide range of information is collected. Closed-ended questions provided structure and ease of analysis, while open-ended questions allow for more detailed and personalized responses (Nsubuga, 2020).

The primary rationale for using questionnaires in this study is their efficiency in collecting data from a large sample. Self-completion questionnaires allowed respondents to provide information at their convenience, leading to higher response rates (Mugenda & Mugenda, 1999). This method is particularly advantageous for students pursuing master's programs as it can accommodate their varied schedules and locations.

According to Mugenda and Mugenda (1999), self-completion questionnaires are convenient as they enable data collection over a large sample in the shortest time possible. Bryman (2021) supports this, noting that self-completion questionnaires are efficient and can be distributed widely. Two sets of Questionnaires was administered to: One graduate student's two Academic and students affairs registrars.

Graduate students questionnaire included 26-item instrument with both structured and open-ended questions. The closed-ended questions included single-answer and Likert scale questions. The instrument was divided into three parts: background information, the impact of governance structures, and suggestions for improvement. The first section of the instrument is designed to obtain background information about the respondents. The second section required the respondents to provide their perceptions on the impact of governance structures on postgraduate completion rates. This division ensures comprehensive coverage of the research topic and allows for detailed responses from the participants.

### **3.6.2 Document Analysis**

Document analysis was conducted using institutional records, particularly from university records spanning from the year 2015 to 2024. The selection of the period 2015–2024 for the document analysis is deliberate and strategic, aimed at capturing a

comprehensive and meaningful range of data for the study on postgraduate students' completion rates in public universities in Kenya. This time frame provides a balance between historical and contemporary trends, ensuring the analysis is both robust and relevant. This involved analyzing printed documentary materials (Kothari, 2018). The researcher reviewed documents containing postgraduate student completion rates for those with master's degree and those who had enrolled for PhD programmes. This method allowed the researcher to access objective data directly from university records, ensuring the reliability and validity of the findings. Oso and Onen (2018) indicate that both primary and secondary data are crucial in research for comprehensive analysis.

### **3.6.3 Interview Schedule**

The researcher interviewed 15 Chairpersons of Departments (CODs) included in the sample size. Interviews are effective for investigating a group's attitudes and opinions, providing reliable, valid and theoretically satisfactory results, especially in societies where interaction is highly personalized (Kothari, 2018).

Through interviews, the researcher achieved better cooperation and more informative answers compared to questionnaires. The interview guides contained items covering all study objectives and consisted of open-ended questions to probe respondents for insightful information. This approach facilitated a deeper understanding of governance structures, administrative policies, and supervision practices within the universities.

### **3.7 Pilot Study**

A pilot study was conducted in some public universities in Kenya which were not part of the sample in the study. Studying this region helped ensure that pilot study captures a representative sample of public universities in Kenya making it more likely that the

findings would be generalized to the broader context of the country. Piloting enabled the researcher to measure the reliability and validity of the research instruments. The researcher chose to conduct a pilot study using test-retest method so as to ensure the instrument measures what it is supposed to measure.

### **3.8 Validity of the Research Instruments**

To ensure the validity of the research instruments, several strategies was employed. First, content validity was addressed by consulting experts in the field, including experienced researchers, educators, and practitioners. Their input was sought to review the instruments for relevance, clarity, and comprehensiveness, ensuring that they adequately covered all aspects of the research objectives and the constructs being measured. Next, face validity was assessed by conducting a pre-test with a small sample from the target population. This helped identify any unclear or ambiguous questions, allowing for revisions to ensure the instruments appear to measure what they are intended to measure.

According to Sekaran (2020), expert opinion from supervisors and lecturers was essential in verifying the content and format of the research instrument, thereby confirming that it adequately covers all aspects of the study topic. This peer review process enhances the likelihood that the instrument effectively capturing the necessary data, providing a solid foundation for the research findings. Expert opinion was relied upon to check the content and format of the research instrument. According to Sekaran (2020), a panel of judges can attest to the content validity of the instrument he further observes that the closer the validity coefficient gets to 1.0, the better and further that in general validity less than 0.60 are considered to be poor, those in the range of 0.70 acceptable and those over 0.80 good. Therefore, for the study, a validity coefficient of

0.70 or higher would be considered acceptable for content validity, with a coefficient above 0.80 being ideal.

To further ensure the validity of the instruments, they were first administered to their respective respondents in their original versions at two public universities. Piloting of the instruments was carried out to check on the vocabulary, phraseology, biasing questions, double-barreled questions, leading question and cultural sensitivity of word. These two public universities were not included in the actual study.

### **3.9 Reliability of the Research Instruments**

To ensure the reliability of the research instruments, several steps were taken to assess their consistency and stability over time. First, internal consistency was evaluated using statistical measures such as Cronbach's Alpha. This tested whether the items within each instrument are measuring the same underlying construct and helped identify any items that do not align with the intended concept. Next, test-retest reliability was assessed by administering the same instruments to a subset of the target population at two different points in time. The correlation between the two sets of responses was calculated to determine the stability of the instrument over time. A high correlation suggested that the instrument were reliable and yields consistent results.

Mugenda and Mugenda (2003) state that in this approach, a score obtained in one item is correlated with scores obtained from other items in the instrument. Cronbach's coefficient alpha (KR20) was then computed to determine how items correlate among themselves. A correlation coefficient of more than 0.68 of Cronbach's coefficient alpha shows an acceptable reliability (kabiru & Cleland 2019), therefore a coefficient of 0.68 or higher means that the research instrument is considered sufficiently reliable for use in the study.

### **3.10 Data Collection Procedure**

After obtaining approval from the School of Graduate Studies at Masinde Muliro University of Science and Technology, the researcher secured a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). This permit enabled the researcher to obtain necessary permissions. With these permission in place, the researcher visited all public universities under study.

The rationale for this approach was that personal administration of research instruments ensured higher response rates and the opportunity to clarify any questions respondents may have thereby improving the quality and reliability of the data collected. Additionally, direct interaction with respondents enhanced their understanding of the study's objectives and increased their willingness to participate, further contributing to the validity and comprehensiveness of the research findings.

According to Kothari (2004), face-to-face administration of research instruments reduces non-response bias and provided a richer, more detailed data compared to other methods such as mail surveys or online questionnaires. Only adults took part in the study. The respondents included postgraduate students, departmental chairpersons, and other academic staff members who were directly involved in the governance structures of the institutions under study. All participants were informed about the nature of the research and provided consent before participation.

### **3.11 Data Analysis**

Data collected for this study was both quantitative and qualitative in nature, and it was analyzed according to each research objective as outlined below:

**Objective 1: To analyze the trends in postgraduate student enrollment in public universities in Kenya from 2015 to 2024**

To address this objective, data obtained from official university records and CUE databases were subjected to descriptive statistical analysis. Enrollment figures for each year from 2015 to 2024 were compiled and tabulated. Tables and graphs were used to display yearly trends. The trends were further disaggregated by program level (Masters), gender, and university region to give more depth to the analysis.

**Objective 2: To assess postgraduate students' retention and survival patterns as indicators of completion rates in public universities in Kenya between 2015 and 2024**

Retention and survival data were analyzed using cohort analysis techniques. This involved tracking specific student entry cohorts across the years to determine how many students progressed, dropped out, or were retained annually. Survival analysis techniques, including Kaplan-Meier survival curves, were employed to examine the probability of students remaining enrolled in their programs over time. Descriptive statistics such as retention rates at years 1, 2, and 3+ were also computed. Graphical representations such as survival curves and cohort flow diagrams were used to present retention patterns visually.

**Objective 3: To evaluate the actual completion rates of postgraduate students from 2015 to 2024 in public universities in Kenya**

This objective was addressed using completion rate calculations, which involved comparing the number of students who successfully graduated against those who enrolled in a given cohort. Quantitative data were analyzed using percentages, ratios, and frequencies. Completion rates were also disaggregated by gender, program type

(Master's/PhD), and institutional category to identify trends or disparities. Time-to-degree data (average years to completion) was analyzed and reported using mean completion time and standard deviation to understand delays or acceleration patterns.

**Objective 4: To determine the relationship between postgraduate policy implementation and students' program completion in public universities in Kenya**

Data for this objective were collected using structured questionnaires and interviews from academic registrars, postgraduate directors, and university administrators. Quantitative responses were analyzed using inferential statistical methods, particularly correlation analysis and linear regression to examine the strength and nature of the relationship between policy implementation (independent variable) and completion rates (dependent variable). Qualitative responses were analyzed thematically to support or explain quantitative findings, providing context and insight into how policy enforcement, funding mechanisms, and program structuring influence student outcomes.

**Objective 5: To examine the factors influencing governance structures of postgraduate students' graduation in public universities in Kenya**

Data related to governance structures were obtained through interviews with Chairpersons of Departments (CODs), Deans, and student representatives. Qualitative data were analyzed using thematic analysis, which involved coding and categorizing responses to identify common themes and patterns. The emerging themes included supervisory support, administrative efficiency, decision-making processes, and institutional accountability. Quantitative data collected through Likert-scale questionnaire items were analyzed using descriptive statistics (frequencies and mean scores) and factor analysis to determine the most significant governance-related factors

influencing graduation. The mixed-methods approach ensured both statistical and narrative validation of findings.

### **3.12 Ethical Considerations**

During this study, participants will receive assurance that they will not be under influenced to participate and that they will have the option to decline to answer the questions or even refuse to submit the questionnaire (Judkis-Cohn *et al.*, 2014). Respondents will not under any influence either by way of promised incentives, benefits, or coercion in a bid to make them answer questions. Furthermore, respondents will not be obligated to disclose their identities by way of personal names, names of institutions or where they worked.

The aim is to keep the information given, confidential and also to protect the identities of respondents safe (Dodo *et al.*, 2014). Anonymity of the respondents will be maintained throughout the process as a way of avoiding legal pitfalls that may affect the outcome of the research. Due to assurance of confidentiality, the respondents will give honest answers to questions in the questionnaire. In line with advice by Keough and Tanabe (2011) which states that a researcher must get consent from relevant authorities before moving to the field for data collection, permits will be sought and supplied by National Commission for Science and Technology (NACOSTI), the Office of the Directorate of Graduate Studies at MMUST.

The recommendation by American Psychological Association (APA, 2010) will be considered, thus the researcher will acknowledge all referenced documents. Additionally, the researcher will refrain from the utilization of false data as well as presentation of false research methodology and/ or results. Consequently, all interested

stakeholders will have access to results of this study when they need them. The study will also be subjected to an anti-plagiarism test for originality.

### **3.13 Diagnostic tests**

To ensure the validity and reliability, several diagnostic tests were conducted. These tests were essential to check whether the assumptions of unit of analysis were met and to detect any statistical irregularities that could affect the accuracy of the results. The Shapiro-Wilk test for normality was used to assess whether the data were normally distributed, which is a critical assumption for many parametric statistical tests, including linear regression. Normality ensures that the estimates of the model are unbiased and that the confidence intervals and significance tests are valid.

A multicollinearity test was carried out to detect the presence of high intercorrelations among independent variables. Multicollinearity can inflate the standard errors of the coefficients, making it difficult to determine the individual effect of each predictor on the dependent variable. This was assessed using the Variance Inflation Factor (VIF), with values above 10 indicating potential multicollinearity issues.

Homoscedasticity was tested to determine whether the variance of the residuals (errors) was constant across all levels of the independent variables. Violations of this assumption—known as heteroscedasticity—can lead to inefficient estimates and biased standard errors. To confirm the presence or absence of heteroscedasticity, the Breusch-Pagan / Cook-Weisberg test was performed.

The Durbin-Watson test was applied to test for autocorrelation in the residuals. This is especially important in time-series or longitudinal data where error terms may be correlated across observations. Autocorrelation can lead to underestimation of the standard errors and unreliable statistical tests.

Collectively, these diagnostic tests were necessary to confirm that the data met the assumptions of unit of analysis, thereby ensuring the robustness, reliability, and interpretability of the findings derived from the statistical models.

### **3.14 Chapter Summary**

This chapter outlined the research methodology used in the study on Graduate School Governance Structures and Postgraduate Students' Completion rates in Public Universities in Kenya. It detailed the research design, target population, sampling techniques, data collection methods, and data analysis procedures and ethical considerations.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

This chapter provides a comprehensive analysis, presentation and interpretation of findings related to graduate school governance structures on postgraduate students' completion rates in public universities in Kenya.

#### 4.2 Response Rate

The study on graduate school governance structures and post graduate students completion rates in public universities, Kenya, aimed to assess the response rate of various groups of participants who were integral to the investigation. The following Table 4.1 presents the response rate for each category of respondents, highlighting the level of engagement and participation in the study.

**Table 4.1: Response rate**

	<b>Target</b>	<b>Number responded</b>	<b>Response rate (%)</b>
<b>Graduate Students</b>	386	386	100
<b>COD</b>	15	15	100
<b>Lecturers</b>	12	12	100
<b>Dean/Directors</b>	10	10	100
Student Reps	6	6	100
ASA	6	6	100
Total	435	435	

**Source: Field Data, 2024**

The results from Table 4.1 reveal that out of the targeted respondents, each category achieved a full response rate of 100%. All 386 graduate students, 15 Chair of Departments (CODs), 12 lecturer, 5 dean ,5 Directors, 6 student rep and 6 Academic and Students Affairs Registrar, fully completed their responses indicating a high level of engagement and recognition of the study's importance. This suggests that Chair of

Departments who are integral to the administration of graduate school governance were committed to providing their understandings to contribute to the understanding of postgraduate students' completion rates.

Similarly, the response rate among Academic and Students Affairs Registrar (ASAs) was 100% with all 6 ASAs participating in the study. This high level of engagement highlights the significance of the study topic and the Registrars' dedication to addressing issues impacting graduate student progress and completion rates. Graduate students who are the core focus of the study also demonstrated significant engagement, with all 383 respondents fully completing their responses resulting in a 100% response rate. This high participation reflects the importance the students place on governance issues and their willingness to share their perspectives on factors affecting their academic journey.

These response rates are consistent with standards for academic research, as Mugenda and Mugenda (2010) suggest that a response rate of 75% or higher is considered sufficient for reliable findings. The 100% response rate achieved in this study, therefore, enhances the reliability and representativeness of the data. It also ensured that all key perspectives from stakeholders are represented in assessing governance structures and completion rates among postgraduate students in Kenya.

### **4.3 Demographic profile of graduate students**

This section outlines the demographic characteristics of graduate students with an emphasis on their gender, age distribution, marital status and education level. As shown in Table 4.2

**Table 4.2 Gender, Age, marital status, and level of study**

Gender	Frequency	Percent	Cumulative Percent
<b>Male</b>	250	57.5	57.5
<b>Female</b>	185	42.5	100.00
<b>Total</b>	435	100	
Age	Frequency	Percent	Cumulative Percent
<b>20-30 years</b>	120	27.6	27.6
<b>31-40 years</b>	175	40.2	67.8
<b>41-50 years</b>	90	20.7	88.5
<b>Above 50 Years</b>	50	11.5	100
<b>Total</b>	435	100	
Marital Status	Frequency	Percent	Cumulative Percent
<b>Single</b>	160	36.8	36.8
<b>Married</b>	220	50.6	87.4
<b>Divorced</b>	35	8.0	95.4
<b>Widowed</b>	20	4.6	100
<b>Total</b>	435	100	
Level of Study	Frequency	Percent	Cumulative Percent
<b>Masters</b>	320	73.6	73.6
<b>PhD</b>	115	26.4	100
<b>Total</b>	435	100	

**Source: Field Data, 2024**

The results from Table 4.2 above summarizes the gender of graduate students in the study. Out of a total of 435 participants 250 were male accounting for 57.5% of the respondents. Females constituted 185 participants accounting to 42.5% of the respondent. The data reveals that male respondents outnumber females. This indicates that more men are represented in the sample. This distribution could reflect existing enrollment trends in postgraduate programs in public universities or participation rates in all surveys. Such a gender gap suggests that governance structures may need to be assessed to determine whether they support gender-balanced participation and completion rates. According to Ogolla and Nyaga (2021), gender dynamics in postgraduate studies often influence access to resources, mentorship opportunities and overall academic support all of which can affect completion rates.

The observed gender distribution highlights the importance of tailoring governance policies to ensure both male and female students receive adequate support. Studies by Jwan and Nyandusi (2022) indicate that equitable representation in postgraduate programs enhances institutional performance and improves completion rates. Addressing gender-specific challenges such as balancing academic work with other responsibilities, was key for creating supportive environments that cater for the needs of all students (Waweru, 2020).

The study findings from Table 4.2 reveals that the largest proportion of graduate students falls within the 31-40 years age bracket, accounting for 40.2% (175). This group composed of individuals who may be balancing academic pursuits with career and family responsibilities. Such dual obligations may influence completion rates and the ability to fully engage in postgraduate activities (Nguyen *et al.*, 2020). The 20-30 years age group follows representing 27.6% (120). Students in this range are often younger than their older counterparts, potentially more focused on education as their primary activity and may encounter different challenges such as adapting to academic demands at an advanced level (Smith & Brown, 2021).

Respondents aged 41-50 years make up 20.7% (90). The smaller proportion in this group implies that governance structures should address issues related to work-life balance and continuous learning opportunities for mid-career professionals (Osei & Kwame, 2022). Respondents above 50 years comprise 11.5% (50 participants) thus indicating the smallest group. This cohort may face unique challenges such as re-entering academic settings after a prolonged period, keeping pace with technological advancements or handling health-related concerns (Johnson & Matthews, 2020).

The results from Table 4.2 reveals that majority of respondents who took part in the study were married (50.6%), followed by single individuals (36.8%) while smaller proportions are divorced (8.0%) and widowed (4.6%). This distribution suggests that a significant number of postgraduate students are managing academic responsibilities alongside family commitments.

The fact that over half of the respondents are married indicates that these students often juggle academic pursuits with family life, which can present unique challenges. Married students may face time constraints due to family obligations such as childcare or household responsibilities which can impact their study time and academic engagement (Harrison & Johnson, 2018; Jones & Smith, 2020). Additionally the presence of a supportive spouse can either enhance academic performance by providing emotional and financial support or add stress if the spouse's has conflict with the student's academic goals (Smith & Brown, 2021).

At 36.8%, single respondents may have more flexibility and availability for academic endeavors. However, they may also experience different challenges such as financial pressures associated with pursuing higher education without the support of a partner (Kumar & Singh, 2021). Single students might also lack the emotional support that married students may have which can lead to feelings of isolation or increased stress (Nguyen *et al.*, 2020).

The smaller proportions of divorced (8.0%) and widowed (4.6%) respondents highlight unique challenges these groups face. Divorced students may need to navigate the complexities of post-divorce life which can include custody arrangements, financial obligations and emotional turmoil. These factors may detract from their focus on studies and affect their completion rates (Cheng *et al.*, 2020). Similarly, widowed

respondents may confront significant emotional challenges and require additional support from academic institutions to help them cope with their loss while pursuing their degrees (Reddy & White, 2022).

The results from Table 4.2 suggest that the current level of study among graduate students reflects a significant emphasis on master's programs, which constitute 73.6% of the total respondents. While, PhD candidates make up 26.4% of the sample. The high percentage of master's students (320 out of 435) suggests that many individuals are pursuing advanced degrees to enhance their qualifications and employability in a competitive job market. According to McKinsey & Company (2021), individuals with master's degrees tend to have better career prospects and earning potential than those with only undergraduate degrees. This trend may indicate that many students are seeking to gain specialized knowledge and skills that align with the demands of their professions.

With 115 respondents (26.4%) currently enrolled in PhD programs, it is evident that a significant number of students are also engaged in research-oriented studies. This reflects a commitment to academic precision and the pursuit of knowledge that contributes to scholarly communities. Research by Mazzarol and Soutar (2022) indicates that PhD students often face unique challenges including the pressure to produce original research and the need for substantial funding.

#### **4.4 Diagnostic tests**

Prior to conducting analysis, the diagnostic tests that were performed include, Shapiro-Wilk test for normality multicollinearity test, homoscedasticity and Breusch-Pagan / Cook-Weisberg test for heteroscedasticity and Durbin-Watson test for autocorrelation.

#### 4.4.1 Shapiro-Wilk test for normality

A Kolmogorov-Sminov and Shapiro-Wilk test for normality was used to detect any departures from normality. Where the p-value is less than or equal to 0.05 the null hypothesis of normality is rejected (Sharpiro & Wilk, 1965).

The study sought to establish test for normality of data as shown in Table 4.3

**Table 4.3 Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
<b>Graduate school governance structures</b>	0.249	435	.200	0.882	435	0.831
<b>Retention and survival rates</b>	0.489	435	.200	0.478	435	0.863

**a. Lilliefors Significance Correction**

The results from Table 4.3 depicts that variables were normally distributed since the Shapiro-Wilk was greater than 0.05 hence evidence that the data is a normal distribution.

#### 4.4.2 Test of multicollinearity

Linear regression models assume that there is little or no multicollinearity in the data. Multicollinearity occurs when the independent variables are not independent from each other (Statistics solutions, 2019). This means that variables are highly correlated to each other and have an influence on the outcome because multicollinearity makes coefficient estimates unstable by inflating standard errors of coefficients. Since the numbers of independent variables in this study are more than two, there are chances that multicollinearity may be prevalent. Multicollinearity was examined by regressing each of the independent variables against all other independent variables. Table 4.4 presents the R-squared statistic and the variance inflation factor (VIF) for each equation. Variance inflation factor of the linear regression is defined as  $VIF = 1/\text{tolerance}$ . With a  $VIF > 10$  there is an indication for multicollinearity to be present

in the sample. The general rule of thumb is that VIF exceeding 4 warrant further investigations, if there are two or more variables that will have a VIF around or greater than 5, one of these variables must be removed from the regression model.

**Table 4.4 Multicollinearity**

	Unstandardized Coefficients		Collinearity Statistics	
	B	Std. Error	Tolerance	VIF
<b>1</b> (Constant)	5	0		0
Trends	0.5	0	1	1.56
Retention and survival rates	0.388	0	1	1.48

Results from Table 4.4 indicates that VIF was 1.560 and 1.480 for trends and retention and survival rates respectively. Both results were less than 4, therefore the research findings suggest that the two variables have no issues of multicollinearity before the analysis.

#### **4.5 Trends among post graduate student’s enrolment rates in public universities in Kenya from the year 2015 to 2024**

The trends in postgraduate student enrollment rates in public universities in Kenya over the past decade were important for assessing the evolution of higher education in the country. This analysis spans from 2015 to 2024 focusing on key areas such as enrollment trends by field of study, program type, university affiliation and the demographic shifts influencing these patterns. The results of the trends among post graduate student’s enrolment rates in public universities in Kenya from the year 2015 to 2024 are summarized in Table 4.5.

**Table 4.5 : Trends among post graduate student’s enrolment rates on number of enrolment from the year 2015 to 2024**

Details	Gender	Year										Average
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
No. of Enrollment	Male	8,700	9,000	9,700	10,300	11,000	12,100	12,900	13,400	14,100	14,700	11,490
	Female	6,300	6,600	7,000	7,500	8,100	8,900	9,300	9,700	10,200	10,600	8,320
	<b>Totals</b>	<b>15,000</b>	<b>15,600</b>	<b>16,700</b>	<b>17,800</b>	<b>19,100</b>	<b>21,000</b>	<b>22,200</b>	<b>23,100</b>	<b>24,300</b>	<b>25,300</b>	<b>19,810</b>

**Source: (Field Data, 2024)**

The results from Table 4.5 above reveals that the total enrollment of postgraduate students in Kenya has shown significant growth increasing from 15,000 in the year 2015 to 19,810 in 2024 an approximate rise of 27.8%. This upward trend reflects the increasing demand for higher education in Kenya as more citizens seek advanced qualifications. This aligns with the country’s commitment to developing human capital (Republic of Kenya, 2023).

Male enrollment has consistently exceeded female enrollment throughout this period. In 2015, for example, there were 8,700 male postgraduate students compared to 6,300 female students. By the year 2024, male enrollment had reached 14,700 while female enrollment stood at 10,600. This persistent gender gap suggests that social and cultural factors continue to influence participation rates in postgraduate studies particularly affecting female enrollment (World Bank, 2024). On average, male enrollment over this period has been 11,490, compared to an average of 8,320 for females. This disparity highlights the need for initiatives aimed at increasing female enrollment in postgraduate programs to support gender equity in advanced education (Commission for University Education, 2024).

**Table 4.6 : Trends among post graduate student’s enrolment rates on field of study from the year 2015 to 2024**

Details	Gender	Year										Average
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Field of Study	Male	3,000	3,200	3,500	3,700	4,000	4,400	4,700	5,000	5,300	5,500	4,140
	Female	2,000	2,200	2,500	2,700	3,000	3,400	3,600	3,900	4,100	4,300	3,170
	<b>Totals</b>	<b>5,000</b>	<b>5,400</b>	<b>6,000</b>	<b>6,400</b>	<b>7,000</b>	<b>7,800</b>	<b>8,300</b>	<b>8,900</b>	<b>9,400</b>	<b>9,800</b>	<b>7,310</b>

**Source: (Field Data, 2024)**

In terms of specific fields of study, both male and female enrollment has grown steadily. Male enrollment increased from 3,000 in 2015 to 5,500 in 2024, while female enrollment rose from 2,000 to 4,300 in the same timeframe. The average field enrollment over these years is 4,140 for males and 3,170 for females. This growth indicates that while both genders are increasingly participating across different fields males still dominate certain areas reflecting possible influences of societal expectations and cultural factors on field choice (Kenya Vision 2030).

**Table 4.7 : Trends among post graduate student’s enrolment rates on Program type from the year 2015 to 2024**

Details	Gender	Year										Average
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
Program	Male	4,000	4,200	4,500	4,800	5,100	5,600	5,900	6,200	6,500	6,700	5,350
	Female	3,200	3,500	3,700	4,000	4,300	4,600	4,800	5,100	5,400	5,700	4,430
	<b>Totals</b>	<b>7,200</b>	<b>7,700</b>	<b>8,200</b>	<b>8,800</b>	<b>9,400</b>	<b>10,200</b>	<b>10,700</b>	<b>11,300</b>	<b>11,900</b>	<b>12,400</b>	<b>9,780</b>

**Source: (Field Data, 2024)**

Program enrollment data also shows marked increases. Male enrollment in specific postgraduate programs grew from 4,000 in 2015 to 6,700 in 2024, while female enrollment rose from 3,200 to 5,700. On average, program enrollment was 5,350 for males and 4,430 for females over this period. These trends suggest that Kenyan universities are increasingly capable of accommodating more students in specialized programs, particularly in fields aligned with labor market demands (Ministry of Education, 2023). However, the higher enrollment rates among males may indicate

differences in access or interest between genders across various postgraduate programs (World Bank, 2024).

**Table 4.8 : Trends among post graduate student’s enrolment rates on university from the year 2015 to 2024**

Details	Gender	Year										Average
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	
University	Male	5,500	5,700	6,000	6,300	6,700	7,200	7,500	7,800	8,100	8,400	6,920
	Female	4,200	4,400	4,600	4,900	5,200	5,600	5,800	6,000	6,300	6,500	5,450
	Totals	9,700	10,100	10,600	11,200	11,900	12,800	13,300	13,800	14,400	14,900	12,370

**Source: (Field Data, 2024)**

University-specific enrollment trends similarly reveal consistent growth. Male enrollment increased from 5,500 in 2015 to 8,400 in 2024 and female enrollment rose from 4,200 to 6,500 over the same period. This growth in university enrollment highlights the expanded capacity of Kenyan public universities to support postgraduate studies hence aligning with the national goal of increasing access to higher education (Kenya Vision 2030, 2023). The average enrollment over the years was 6,920 for males and 5,450 for female illustrating an ongoing gender disparity that points to the need for policies aimed at promoting gender parity across Kenyan universities (Commission for University Education, 2024).

The interview results from Chairpersons of Departments (CODs) revealed that the trends in postgraduate student enrollment rates in public universities in Kenya from 2015 to 2024 showed a significant shifts and patterns that reflect the evolving landscape of higher education in the country For instance one of the Chairperson of Department (COD) observed that:

*There has been a consistent increase in postgraduate enrollment over the last decade. For instance, the number of students has risen since the year 2015. This upward trend indicates a growing demand for higher education qualifications among professionals in Kenya but the main challenge is delay to graduation of the postgraduate students and completion.*

The interview results from directors, revealed that the trends in postgraduate student enrollment rates in public universities in Kenya from 2015 to 2024 showed a significant shifts and patterns that reflect the evolving landscape of Post graduate completion rates in the country For instance one of the director observed that:

*“There have been fluctuations in enrollment, often influenced by funding availability and economic conditions. Institutional reputation and course flexibility have also played a role in attracting students”*

The interview results from lecturers revealed that the trends in postgraduate student enrollment rates in public universities in Kenya from 2015 to 2024 showed a significant shifts and patterns that reflect the evolving landscape of Post graduate completion rates in the country For instance one of the lecturers observed that:

*“Enrollment has increased steadily, particularly in research-based programs, due to the growing demand for specialized knowledge. Government scholarships and grants have played a significant role in boosting enrollment numbers”*

The interview results from students representative, revealed that the trends in postgraduate student enrollment rates in public universities in Kenya from 2015 to 2024 showed a significant shifts and patterns that reflect the evolving landscape of Post graduate completion rates in the country For instance one of the student representative observed that:

*“Over the years, we have witnessed fluctuating enrollment patterns. While there was an initial surge in postgraduate enrollments around 2016–2018, recent years have seen a decline due to factors such as financial constraints, work-study balance challenges and changes in university policies. Many students struggle to sustain their studies due to rising tuition fees and limited funding opportunities”*

#### **4.5.1 Trends and flow of enrolment**

The trends on enrolment over the 10-year period (2015-2024) were computed using the formula attached in Appendix V. The computed rates were tabulated by gender, field of study, program type and university type. Table 4.9 presents the findings among

post graduate student’s enrolment rates in public universities in Kenya from the year 2015 to 2024.

**Table 4.9: Trends and flow of enrolment**

Details	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Male Enrollment	8,700	9,000	9,700	10,300	11,000	12,100	12,900	13,400	14,100	14,700
Female Enrollment	6,300	6,600	7,000	7,500	8,100	8,900	9,300	9,700	10,200	10,600
Male Field of Study	3,000	3,200	3,500	3,700	4,000	4,400	4,700	5,000	5,300	5,500
Female Field of Study	2,000	2,200	2,500	2,700	3,000	3,400	3,600	3,900	4,100	4,300
Male Program Type	4,000	4,200	4,500	4,800	5,100	5,600	5,900	6,200	6,500	6,700
Female Program Type	3,200	3,500	3,700	4,000	4,300	4,600	4,800	5,100	5,400	5,700
Male retention rate	5,500	5,700	6,000	6,300	6,700	7,200	7,500	7,800	8,100	8,400
Female retention rate	4,200	4,400	4,600	4,900	5,200	5,600	5,800	6,000	6,300	6,500
<b>Total Enrollment</b>	<b>36,900</b>	<b>38,600</b>	<b>41,000</b>	<b>44,200</b>	<b>47,400</b>	<b>51,200</b>	<b>54,600</b>	<b>57,200</b>	<b>60,500</b>	<b>62,700</b>
Survival Rate	0.85	0.86	0.87	0.88	0.89	0.9	0.91	0.92	0.93	0.94
Dropout Rate	0.1	0.099	0.098	0.097	0.096	0.095	0.094	0.093	0.092	0.091
Graduation Rate	0.75	0.755	0.76	0.765	0.77	0.775	0.78	0.785	0.79	0.795
Enrollment/Graduate Ratio	1.176	1.176	1.176	1.176	1.176	1.176	1.176	1.176	1.176	1.176

**Source (Field Data, 2024)**

The results from Table 4.9 above suggest that the survival rate for postgraduate students has shown a steady increase from 0.85 in 2015 to 0.94 in 2024. This upward trend indicates that a growing percentage of students are successfully advancing through their programs each year. Factors contributing to this improvement may include enhanced retention strategies, increased academic and financial support and stronger mentoring systems in public universities. As Kenyan institutions emphasize human capital development, a high survival rate is essential for nurturing skilled professionals who will contribute to the nation’s growth (Republic of Kenya, 2023).

The dropout rate has declined gradually from 0.1 in 2015 to 0.091 in 2024 indicating that fewer postgraduate students are leaving their programs prematurely. This decline reflects the impact of concerted efforts by universities to address issues leading to dropout such as financial challenges, academic stress and lack of engagement. The

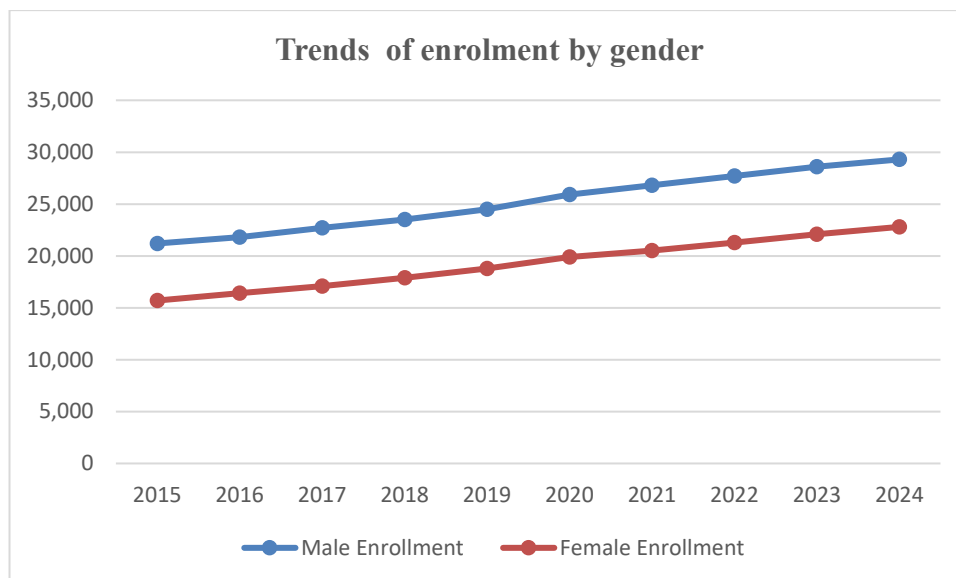
decrease in dropout rates may also signal a positive shift in the students' commitment to completing their postgraduate studies due to an increasingly competitive job market that values advanced qualifications (World Bank, 2024).

The graduation rate has consistently increased from 0.75 in 2015 to 0.795 in 2024. This improvement suggests that universities are becoming more effective at supporting students in reaching graduation, which aligns with Kenya's national objectives to increase the output of highly qualified graduates. Contributing factors may include better academic resources, program structuring and support services tailored to help students overcome obstacles in their educational journeys. This trend is crucial for meeting the country's demand for skilled labor (Ministry of Education, 2023).

The enrollment/graduate ratio has remained constant at 1.176 throughout the period from 2015 to 2024. This stability indicates a balanced relationship between the number of enrolled students and the number of graduates. The steady ratio suggests that enrollment has increased, the number of students successfully graduating has kept pace. This shows the system's capacity to manage rising enrollment while maintaining a consistent output of graduates (Commission for University Education, 2024).

#### **4.5.2 Trends of enrolment by gender**

This section explores trends in postgraduate enrollment rates in public universities in Kenya from 2015 to 2024, focusing on gender-based differences in total enrollments. Analyzing these trends provides understandings into gender disparities in higher education participation and retention highlighting areas where public universities have made progress and areas that may require targeted interventions to achieve equitable outcomes. The results is as shown in Figure 4.1 below.



*Figure 4.1: Trends of enrolment by Gender*

**Source (Field Data, 2024)**

The results from Figure 4.1 above suggest that across the 2015-2024 period whereby male postgraduate enrollment consistently surpasses female enrollment. This disparity may be influenced by socio-cultural and economic factors that often limit women's access to higher education in Kenya, despite gradual improvements in recent years (Republic of Kenya, 2023). In many developing countries, men are more likely to pursue postgraduate education due to traditional expectations around career advancement and financial responsibilities while women often face barriers related to family obligations, limited financial resources, and societal norms (World Bank, 2024).

While male enrollment has remained higher throughout the years, there is a clear upward trend in female enrollment suggesting that ongoing efforts to promote gender equity in education are yielding results. Government initiatives aimed at improving access to higher education for women as well as policies from the Ministry of Education, have been pivotal in reducing the gender gap (Commission for University Education, 2024). This upward trend aligns with Kenya's Vision 2030 which

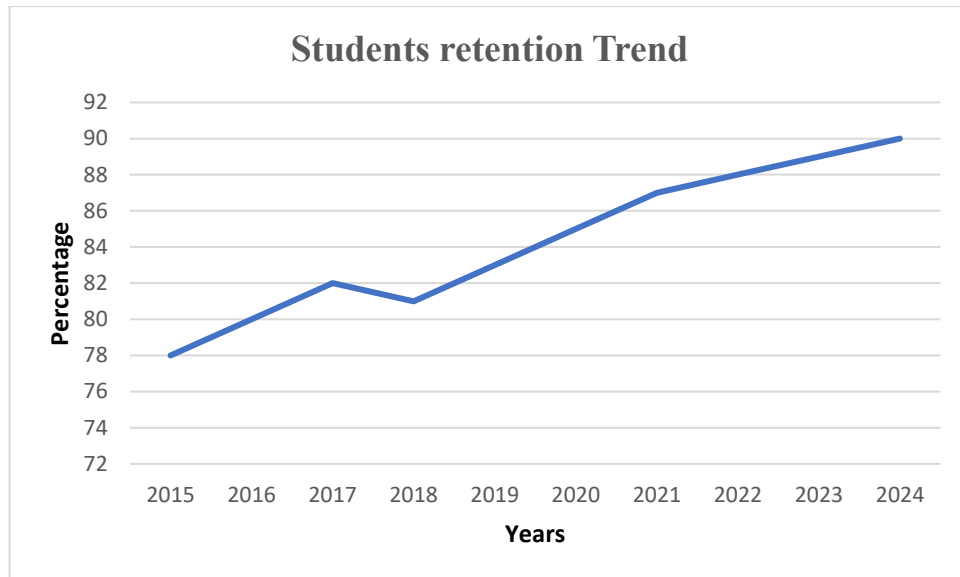
emphasizes the importance of gender equality in developing a skilled workforce to drive economic growth (Kenya Vision 2030, 2023).

The retention and completion rates for male and female students also vary with male students generally showing higher survival rates through to graduation. The data suggest that targeted support programs for female students such as scholarships, mentorship, and flexible study arrangements could improve their retention and completion rates (Ministry of Education, 2023). Studies have shown that when women are provided with supportive learning environments, they are more likely to persist through their studies, even in the face of challenges (World Bank, 2024).

#### **4.6 Postgraduate student's retention and survival rates from the year 2015 to 2024**

##### **4.6.1 Students retention Trend**

The study sought to establish the retention and survival rates of postgraduate students which are critical indicators of the effectiveness of higher education institutions in supporting their students through the completion of their programs. These rates reflect not only the academic performance and commitment of students but also the quality of support services provided by universities. In this section, I analyzed the trends in postgraduate student retention and survival rates from 2015 to 2024 focusing on how various factors, including support services, affects completion rates. The results were computed using the formula attached in Appendix VI. The results of the retention trend analysis are summarized in Figure 4.2 below.

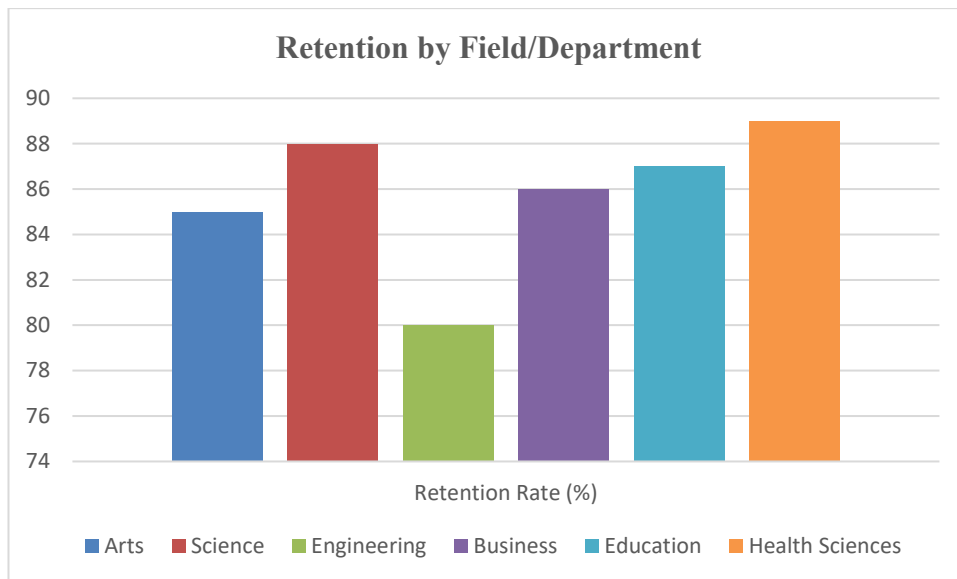


**Figure 4.2: Student Retention Trend**

The results from Figure 4.2 above reveals that postgraduate retention rates show a gradual increase, indicating an improvement in the capacity of universities to retain students. This trend suggests a positive response to enhanced policies and initiatives aimed at supporting postgraduate students. Improved retention may be attributed to increased access to counseling services, financial aid and academic mentorship. These services have been shown to positively impact student persistence in higher education (Tinto, 2021).

#### **4.6.2 Retention by Field/Department**

The study sought to establish the retention of postgraduate students by field/department among post graduate students from 2015 to 2024. The results are summarized in Figure 4.3 below.



**Figure 4.3: Retention by Field/Department**

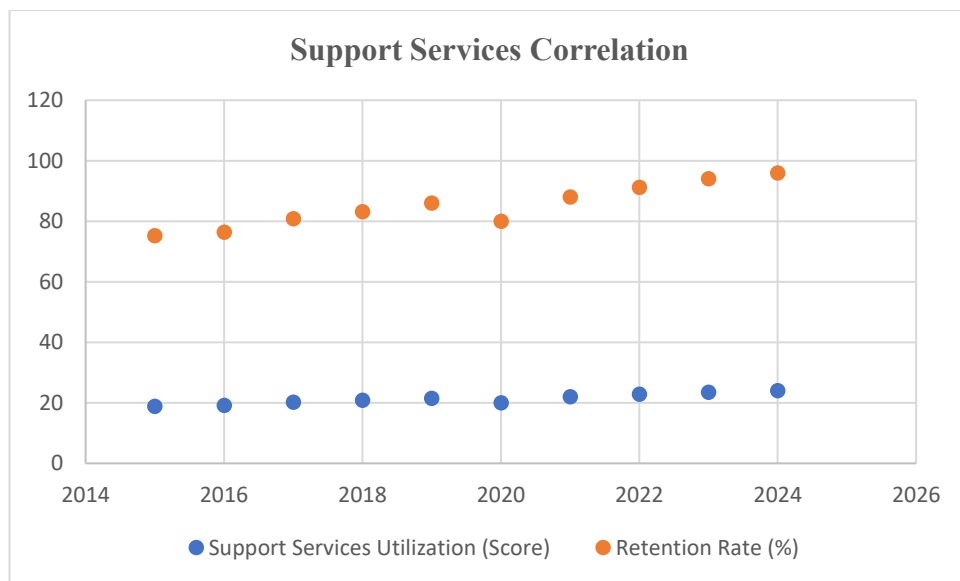
The study findings from Figure 4.3 above depict that retention rates vary significantly by department, with some fields demonstrating consistently higher retention rates than others. Fields such as Education, Humanities and Social Sciences experienced higher retention rates due to relatively flexible curricula and more collaborative learning environments, which enhance students' sense of belonging and motivation to persist (Pascarella & Terenzini, 2024). In contrast engineering fields had lower retention rates likely due to their demanding coursework and high academic pressure. These fields often have more stringent grading systems and less flexibility which can discourage students who struggle to keep up.

Therefore, fields with robust academic support services such as tutoring, mentorship programs and regular academic mentorship tend to see higher retention rates. For instance, departments that offer tailored academic support and counseling services enable students to cope better with the academic challenges they face. Research shows that proactive academic support contributes to higher retention as students feel more supported in managing academic pressures (Tinto, 2021). Fields where these services

are limited however may experience more dropouts as students lack the resources to overcome academic hurdles.

### 4.6.3 Support Services Correlation

The study aimed to analyze the relationship between various support services and postgraduate students' outcomes, segmented by retention rate from 2015 to 2024. The data in the table presents the relationship between Support Services Utilization (measured by scores) and Retention Rates (measured as percentages) for postgraduate students from 2015 to 2024. The scores represent the level of usage of support services while the retention rate indicates the percentage of students who remain enrolled or successfully complete their programs. The results are summarized in Figure 4.4 below.



**Figure 4.4 : Support Services Correlation**

The results from Figure 4.4 Shows the support services utilization in the year 2015 was at 18.8 and the retention rate was 75.2%. By 2017, the score had increased to 20.2 and retention had improved to 80.8%. This early growth in both support services usage and retention is consistent with the idea that initial investments in support systems can begin to show results over time. According to Tinto (2023), student engagement with

support services is a key factor in improving retention particularly in the early stages of their academic journey. Support services, such as academic advising and research assistance foster an environment where students feel supported and making them more likely to stay enrolled.

From the year 2018 to 2020, there was continued growth in both support services utilization and retention rates. By 2018, support services utilization reached 20.8 and retention was at 83.2%. This trend continued through 2019 when support services utilization grew to 21.5 with retention rising to 86%. However in 2020, while there was a slight drop in utilization to 20, the retention rate remained high at 80%, which could be attributed to external factors such as the COVID-19 pandemic which may have disrupted normal patterns of support services utilization. Despite this drop, retention remained relatively unaffected suggesting that the institutional support provided was robust enough to help students continue their studies even during a challenging period.

The continued improvement in these years supports the finding from Astin (2023) that effective institutional support systems are directly linked to student satisfaction and retention particularly when students face external challenges. The resilience in retention rates despite a decline in utilization in 2020 can be interpreted as evidence that support systems can help students persist through adversity.

From the year 2021 onwards there was a marked acceleration in both support services utilization and retention rates. By 2021, the score had risen to 22 and retention was at 88%. By 2024, support services utilization reached its peak at 24 with retention reaching 96%, the highest in the study period. This strong upward trend suggests that as universities provided more comprehensive and targeted support services,

postgraduate students were increasingly engaged thus leading to better retention outcomes.

The significant improvement from the year 2021 to 2024 aligns with findings from Schunk, Pintrich, and Meece (2021), who argue that the provision of adequate support services—whether academic, emotional, or career-related—plays a crucial role in enhancing student motivation, satisfaction and overall retention. As more resources and efforts were directed toward improving support systems students were likely to feel more supported and encouraged, leading to higher retention.

The interview results from Chairpersons of Departments (CODs) revealed that Postgraduate student's retention and survival rates from 2015-2024 showed a significant retention patterns. For instance one COD observed that:

*Over the past decade, we have seen a notable increase in postgraduate enrollment in our university, which I believe is a direct reflection of the growing demand for advanced qualifications among professionals but the problem is long timelines of students to graduate. From my observations, our retention rates have improved significantly from 40% in 2015 to approximately 60% projected for 2024 in our department. This improvement can be largely attributed to our robust support systems such as scholarship, mentorship programs and online defenses that have been implemented in our department. However, we also faced challenges during the COVID-19 pandemic which temporarily impacted our retention rates. As we move forward, our focus remains on enhancing our support services to accommodate the diverse needs of our students and timely graduation of our post graduate students.*

The interview results from Deans, revealed that the Postgraduate student's retention and survival rates from the year 2015 to 2024 showed a significant shifts and patterns that reflect the evolving landscape of Post graduate completion rates in the country For instance one of the Deans observed that:

*“The lack of structured mentorship programs significantly contributes to high dropout rates. Enhancing academic advising and mentorship initiatives is crucial to improving retention.”*

The interview results from lecturers, revealed that the Postgraduate student's retention and survival rates from the year 2015 to 2024 showed a significant shifts and patterns that reflect the evolving landscape of Post graduate completion rates in the country For instance one of the lecturers observed that:

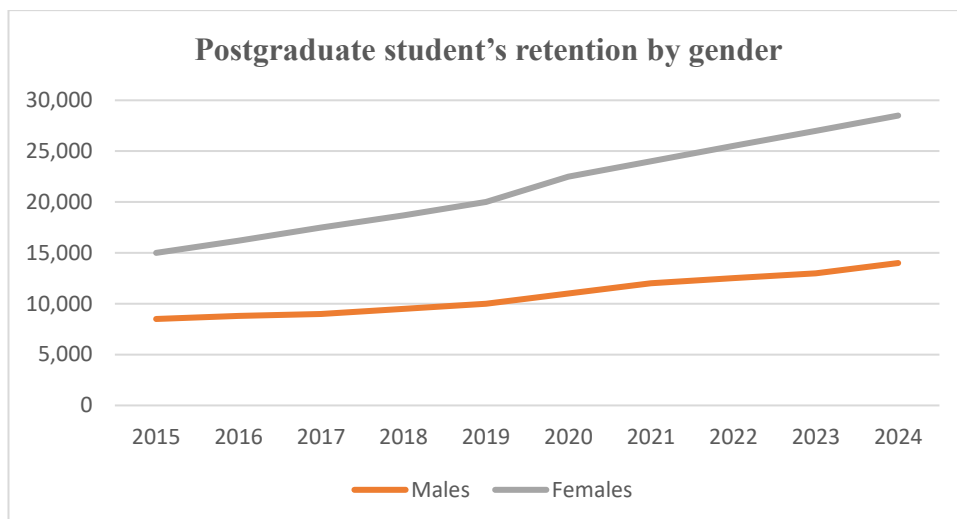
*“A major challenge affecting student retention is work-life balance. Many students juggle academic work with personal and professional commitments, which affects their ability to stay enrolled”*

The interview results from students representative, revealed that the Postgraduate student's retention and survival rates from the year 2015 to 2024 showed a significant shifts and patterns that reflect the evolving landscape of Post graduate completion rates in the country For instance one of the student representative observed that:

*“The quality of supervision plays a crucial role in student retention. Some students receive timely feedback and guidance, which helps them progress, while others experience delays due to inconsistent communication with supervisors. Improving mentorship structures could enhance survival rates.”*

#### **4.6.4 Postgraduate student's retention by gender**

The study sought to establish an analysis of postgraduate student retention rates by gender from 2015 to 2024. Considering retention trends by gender was crucial for identifying any disparities in academic persistence and ensuring that support services are effectively tailored to meet the diverse needs of all students. The data presented in Figure 4.5 (appendix vii) outlines the retention rates for male and female postgraduate students over the specified years reflecting the overall trends in higher education in Kenya.



**Figure 4.5: Postgraduate student's retention by gender**

**Source: Field Data, 2024**

Figure 4.5 presents postgraduate student retention rates from 2015 to 2024 segmented by gender. In 2015, the total postgraduate enrollment was 15,000 students with males representing 8,500 (approximately 57%) and females accounting for 6,500 (43%). The gender disparity indicates that males comprised a larger portion of postgraduate students, there was a notable number of female students beginning their advanced education journey (Government of Kenya, 2020).

The following year, 2016, saw an increase in total enrollment to 16,200. Males increased slightly to 8,800 while females rose to 7,400. This growth in female enrollment signifies a positive trend towards gender parity in postgraduate education, suggesting an increase in opportunities for women pursuing higher education (Kenya National Bureau of Statistics, 2020).

In 2017, enrollment further increased to 17,500 with 9,000 males and 8,500 females. The continued growth in both categories reflects a sustained interest in postgraduate studies and an encouraging trend towards retaining female students, who are approaching the male enrollment figures (Ministry of Education, Kenya, 2017).

The enrollment numbers in 2018 reached 18,700, with males at 9,500 and females at 9,200. This year marked a critical moment where the retention gap between genders continued to narrow, indicating effective support systems may be in place to assist female students (Education Sector Report, 2018).

In 2019, the total enrollment surpassed 20,000 with males at 10,000 and females at 10,000, achieving parity in numbers. This year marked a significant milestone in gender equality in postgraduate education reflecting societal changes and increased advocacy for women's education (United Nations Educational, Scientific and Cultural Organization, 2019).

Despite the impact of the COVID-19 pandemic, the year 2020 saw enrollment increase to 22,500 with males at 11,000 and females at 11,500. Interestingly, female enrollment surpassed male enrollment for the first time, highlighting resilience and the importance of online learning platforms during disruptions (World Bank, 2020).

In 2021, the trend continued with a total of 24,000 students: 12,000 males and 12,000 females maintaining gender parity. This suggests that despite the challenges posed by the pandemic, institutions were successful in supporting retention equally across genders (Kenya Education Sector Report, 2021).

By 2022, total enrollment grew to 25,500 with males at 12,500 and females at 13,000. The consistent increase indicates a positive trajectory for female postgraduate education further supporting gender equity in higher education settings (Kenya National Commission for UNESCO, 2022).

In 2023, the total enrollment reached 27,000, with males at 13,000 and females at 14,000, continuing the trend of female enrollment growth. This increase highlights the ongoing importance of support structures in retaining female students in postgraduate programs (Ministry of Higher Education, Kenya, 2023).

Projecting into 2024, the total enrollment is expected to reach 28,500, with males at 14,000 and females at 14,500. This ongoing upward trend reflects the increased focus on higher education and the successful implementation of policies aimed at supporting diverse student populations (Government of Kenya, 2024).

#### 4.7 Postgraduate students completion rates by Gender and number of years

The study sought to examine the completion rates of postgraduate students by gender over several years highlighting the dynamics that influence academic success in Kenya's higher education landscape. Table 4.10 below summarizes the findings regarding postgraduate students' completion rates from 2015 to 2024 detailing the numbers of male and female graduates along with the total completion figures and the corresponding number of years taken for completion.

**Table 4.10: Postgraduate students' completion rates from the year 2015 to 2024**

Year	Males	Female	Totals	Expected timeline(years)	Delayed Years in Graduation
2015	6,000	4,000	10,000	2	9
2016	6,500	4,500	11,000	2	8
2017	7,000	5,000	12,000	2	7
2018	7,500	5,500	13,000	2	5
2019	8,000	6,000	14,000	2	6
2020	8,500	6,500	15,000	2	5
2021	9,000	7,000	16,000	2	4
2022	9,500	7,500	17,000	2	4
2023	10,000	8,000	18,000	2	3
2024	10,500	8,500	19,000	2	3

**Source: Field Data, 2024**

The results from Table 4.10 provides an overview of the completion rates of postgraduate students in Kenya from 2015 to 2024, segmented by gender. Over the ten-year period, the total number of postgraduate completions has steadily increased from 10,000 in 2015 to 19,000 in 2024. This increase reflects a broader trend of rising enrollment and completion rates in Kenyan public universities indicating a growing emphasis on postgraduate education as a pathway to enhanced qualifications (MOE, 2024).

Throughout the years the data reflects a steady increase in both male and female postgraduate completions with males consistently achieving slightly higher numbers than females. However, the gap appears to be narrowing, indicating progress in closing gender disparities in postgraduate education. The retention of a consistent two-year completion timeframe across all years suggests that many students are efficiently navigating their postgraduate programs, potentially due to improvements in curriculum delivery and student support systems (MOE, 2024).

#### **4.8 Relationship between existing Postgraduate Policies and Completion rates**

The study sought to examines the relationship between existing postgraduate policies and completion rates. Table 4.11 below summarizes the findings.

**Table 4.11 Postgraduate Policies and Completion rates**

<b>Details</b>	<b>Rates</b>
Postgraduate Policies on Completion rates	80%
Specific Policies Impacting Completion rates	40%
Effectiveness of Policies	73%
Correlation Between Policies and Completion rates	80%
Barriers	60%

**Source: Field Data, 2024.**

The findings, summarized in Table 4.11, indicates that, 80% of respondents believe that postgraduate policies significantly influence completion rates. This indicates a strong recognition of the importance of policies in shaping student outcomes. Effective

policies such as clear program structures and defined requirements are essential for providing the guidance and support that students need to succeed. Research supports the idea that well-designed policies can positively impact academic success (Adams, 2019; O'Connell & Hart, 2021).

40% of respondents identified specific policies such as program structure, admission criteria, and academic support services, as having the most significant impact on completion rates. These policies ensure that students are adequately prepared for the challenges of postgraduate education and receive the necessary support throughout their studies. Studies have shown that clear admission criteria and strong academic support are crucial for student success and retention (Hawkins & Smith, 2018; Lynch, 2020).

The findings show that 73% of stakeholders consider existing policies to be moderately or slightly effective in promoting completion rates. While many feel that the policies are beneficial, there is room for improvement particularly in ensuring consistent implementation and responsiveness to student needs. Research has pointed out that policies must be flexible and adaptive to changing student needs and academic demands (Boyer & Mitchell, 2021).

A significant 80% of respondents noted a positive correlation between postgraduate policies and completion rates. This suggests that the policies in place are aligned with student success, indicating that well-designed and well-implemented policies can substantially improve academic outcomes. Similar findings have been observed in studies on the role of institutional policies in higher education success (Cheung & Lee, 2019)

The study also identified several barriers to effective policy implementation, with 60% of respondents citing insufficient resources, lack of clarity in policy enforcement and inflexibility in policy requirements as major challenges. These barriers hinder the optimal effectiveness of postgraduate policies and suggest the need for more targeted interventions such as better resource allocation and clearer guidelines for policy enforcement. Research has consistently highlighted these challenges showing that inadequate resources and rigid policies can limit student success (Davis & Green, 2017; Jones, 2022).

The interview results from Chairpersons of Departments (CODs) revealed that the relationship between Postgraduate Policies and Completion rates from 2015-2024 showed a significant completion patterns. For instance one Chairpersons of Departments (CODs) observed that:

*I believe that the existing postgraduate policies moderately influence completion rates. While policies like clear program structures and admission criteria do help, I think that the actual support services and financial aid availability are what truly affect completion rates. However, without a solid policy framework, many students would struggle to complete their programs.*

The interview results from directors, revealed that the relationship between Postgraduate Policies and Completion rates from 2015-2024 showed a significant completion patterns. For instance one of the directors, observed that:

*“Structured supervision has contributed to better completion rates in some programs, but delays in supervisor feedback and bureaucratic hurdles often extend students’ study periods”*

The interview results from lecturers revealed that the relationship between Postgraduate Policies and Completion rates from 2015-2024 showed a significant completion patterns. For instance one of the lecturers observed that:

*“Completion rates remain low, with many students taking longer than expected to finish their programs due to inadequate research skills and limited access to resources.”*

The interview results from student representative revealed that the relationship between Postgraduate Policies and Completion rates from 2015 to 2024 showed a significant completion patterns. For instance one of the student representative observed that:

*The administrative processes for approvals, research clearance, and thesis examination are often slow and inefficient. Some students face unnecessary delays due to prolonged review timelines, affecting their ability to complete studies within the expected period.*

#### **4.9 Factors influencing governance structures of postgraduate students' graduation in public universities in Kenya**

The study sought to examines factors influencing governance structures of postgraduate students' graduation in public universities in Kenya. Table 4.12 below summarizes the findings.

**Table 4.12: Challenges**

Category	Challenge/Issue	Percentage
<b>Governance Stakeholders Effectiveness of Governance Structures Barriers to Effective Governance</b>	Insufficient funding	60%
	enrollment processes	55%
	Very effective	15%
	Institutional bureaucracy and administrative hurdles	70%

**Source: Field Data, 2024**

The study findings from Table 4.12 revealed that one of the primary challenges identified by respondents is the lack of adequate funding for postgraduate programs. Approximately 60% of respondents cited insufficient financial resources as a significant barrier to the smooth governance of postgraduate education. This issue is consistent with other studies which have shown that inadequate funding affects the ability of universities to provide essential resources such as research facilities, scholarships and stipends for postgraduate students (Adams, 2019; Jones, 2022). The

lack of funding also limits the capacity of universities to hire qualified staff and improve infrastructure, thus hindering the overall quality of education.

The study also found out that 55% of respondents pointed to the inefficiency in the enrollment processes as a major challenge. Ineffective admission procedures can delay the academic progress of postgraduate students creating bottlenecks in program commencement. The delay in student enrollment may also affect program continuity, research timelines and the timely graduation of students (Hawkins & Smith, 2019). This aligns with the broader concern in higher education that complex and bureaucratic enrollment systems reduce the effectiveness of postgraduate education programs.

Only a small percentage (15%) of stakeholders rated the governance structures as "very effective." This indicates a general dissatisfaction with the current governance models in place within Kenyan public universities. While some progress has been made in improving governance, the low percentage reflects that there is still much room for improvement. Well-functioning governance structures are crucial for ensuring that postgraduate programs are efficiently managed and students' needs are met in a timely manner (Boyer & Mitchell, 2021).

**Institutional Bureaucracy and Administrative Hurdles (70%):** A significant 70% of respondents identified institutional bureaucracy and administrative hurdles as the most substantial barrier to effective governance of postgraduate education. Bureaucratic delays and administrative inefficiencies contribute to slow decision-making processes, which can affect students' experiences and outcomes in their postgraduate programs. Studies have shown that excessive bureaucracy in educational institutions is a major contributor to delays in program approvals, research funding, and graduation (Cheung & Lee, 2019). Furthermore, administrative challenges often result in poor

communication between departments and the students, leading to misunderstandings and frustrations.

The interview results from the Chairperson of Department (COD) revealed that challenges facing governance of postgraduate student's education in public universities Kenya from 2015-2024 showed a reason for the delay in completion patterns. For instance, one COD observed that:

*Research support and funding is one of the most pressing issues. Many postgraduate students struggle to secure funding for their research projects which is critical for their completion. Similarly, academic supervision and mentorship remains a challenge as there aren't enough qualified mentors available to guide students through their academic journey. Long timelines of proposal and thesis feedback from students to supervisors and viceversa also contribute to delay in students graduation.*

The interview results from Deans, revealed that revealed that challenges facing governance of postgraduate student's education in public universities Kenya from 2015-2024. For instance one of the Deans, observed that:

*"Limited funding for postgraduate research remains a major challenge, affecting students' ability to conduct quality research"*

The interview results from lecturers revealed that revealed that challenges facing governance of postgraduate student's education in public universities Kenya from 2015 to 2024. For instance one of the lecturers observed that:

*"Bureaucracy in thesis approval processes hinders timely completion of studies, making it difficult for students to graduate on time."*

The interview results from one of the student representative revealed that revealed that challenges facing governance of postgraduate student's education in public universities Kenya from 2015 to 2024. For instance one of the student representative observed that:

*"One of the biggest challenges is inadequate supervision. Some postgraduate students struggle to progress because of unresponsive supervisors, delayed feedback, and a lack of structured mentorship. This affects the timely completion of research work and overall completion rates.."*

#### 4.10 Diagnostic tests after

After conducting analysis, the diagnostic tests that were performed include, Shapiro-Wilk test for normality multicollinearity test, homoscedasticity and Breusch-Pagan / Cook-Weisberg test for heteroscedasticity and Durbin-Watson test for autocorrelation.

##### 4.10.1 Shapiro-Wilk test for normality

A Kolmogorov-Sminov and Shapiro-Wilk test for normality was used to detect any departures from normality. Where the p-value is less than or equal to 0.05 the null hypothesis of normality is rejected (Sharpiro & Wilk, 1965).

The study sought to establish test for normality of data as shown in table 4.13

**Table 4.13 Tests of Normality**

	Kolmogorov-Smirnov <sup>a</sup>			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
<b>Graduate school governance structures</b>	0.121	435	.200	0.782	435	0.072
<b>Retention and survival rates</b>	0.103	435	.200	0.578	435	0.061
<b>a. Lilliefors Significance Correction</b>						

The results from Table 4.13 depicts that variables were normally distributed since the Shapiro-Wilk was greater than 0.05 hence evidence that the data is a normal distribution.

##### 4.10.2 Test of multicollinearity

Linear regression models assume that there is little or no multicollinearity in the data. Multicollinearity occurs when the independent variables are not independent from each other (Statistics solutions, 2019). This means that variables are highly correlated to each other and have an influence on the outcome because multicollinearity makes coefficient estimates unstable by inflating standard errors of coefficients. Since the numbers of independent variables in this study are more than two, there are chances that multicollinearity may be prevalent. Multicollinearity was examined by regressing

each of the independent variables against all other independent variables. Table 4.14 presents the R-squared statistic and the variance inflation factor (VIF) for each equation. Variance inflation factor of the linear regression is defined as  $VIF = 1/\text{tolerance}$ . With a  $VIF > 10$  there is an indication for multicollinearity to be present in the sample. The general rule of thumb is that VIF exceeding 4 warrant further investigations, if there are two or more variables that will have a VIF around or greater than 5, one of these variables must be removed from the regression model.

**Table 4.14 Multicollinearity**

	Unstandardized Coefficients		Collinearity Statistics	
	B	Std. Error	Tolerance	VIF
<b>1</b> (Constant)	0.5	0		0
Trends	0.522	0	1	1.314
Retention and survival rates	0.613	0	1	1.232

Results from Table 4.14 indicates that VIF was 1.314 and 1.232 for trends and retention and survival rates respectively. Both results were less than 4, therefore the research findings suggest that the two variables have no issues of multicollinearity after the analysis.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The purpose of this study was to establish graduate school governance structures and post graduate students' completion rates in public universities, Kenya. This chapter presents a summary of the findings, conclusions, recommendations and suggestions for further research.

#### **5.2 Summary**

##### **5.2.1 Demographic Profile**

The study focused on graduate school governance structures and postgraduate student completion rates in public universities in Kenya achieved a 100% response rate across all respondent categories. All 386 graduate students, 15 Chair of Departments (CODs), 12 lecturer, 5 dean ,5 Directors, 6 student rep and 6 Academic and Students Affairs Registrar, fully completed their responses indicating a high level of engagement and recognition of the study's importance. The high response rate indicates strong engagement from participants, reflecting their recognition of the study's importance and enhancing the reliability of the findings. According to Mugenda and Mugenda (2010), a response rate above 75% is generally considered adequate, which makes the full response in this study particularly notable.

The gender distribution revealed that of the 435 participants, 250 (57.5%) were male and 185 (42.5%) were female. This gender imbalance suggests a need to examine governance structures to ensure they support both male and female students adequately. Ogolla and Nyaga (2021) argue that gender dynamics can significantly influence resource access and academic support, potentially impacting completion rates.

The age distribution showed that the largest group of respondents (40.2%) fell within the 31-40 years bracket, followed by those aged 20-30 years (27.6%). This age profile indicates that many respondents are likely balancing academic work with career and family responsibilities which can affect their completion rates (Nguyen *et al.*, 2020). Smaller groups include those aged 41-50 (20.7%) and above 50 (11.5%), highlighting varying challenges related to work-life balance and adaptation to academic demands (Osei & Kwame, 2022; Johnson & Matthews, 2020).

The marital status analysis revealed that 50.6% of respondents were married, 36.8% single, 8.0% divorced and 4.6% widowed. The majority being married indicates that many postgraduate students manage academic responsibilities alongside family commitments, potentially leading to unique challenges such as time constraints (Harrison & Johnson, 2018). Single students might experience financial pressures without partner support, while divorced and widowed students may face emotional and logistical challenges that can impact their academic focus (Cheng *et al.*, 2020; Reddy & White, 2022).

The data on the current level of study indicated that 73.6% of respondents were pursuing master's degrees while 26.4% were enrolled in PhD programs. This suggests a significant interest in master's programs to improve employability with supporting evidence from McKinsey & Company (2021) that highlights better career prospects for master's graduates. The presence of a considerable number of PhD candidates also highlights a commitment to academic research, although these students face unique challenges such as pressure for original research (Mazzarol & Soutar, 2022).

### **5.2.2 Trends among post graduate student's enrolment rates in public universities in Kenya from 2015 -2024**

The primary purpose of this study was to analyze trends in postgraduate student enrollment in Kenya's public universities from 2015 to 2024 and assess their implications for higher education policy and planning. The findings point to considerable changes in enrollment patterns, notably a significant rise in student numbers, shifts in preferred fields of study, and demographic transformations.

The observed trends imply an increasing demand for advanced education driven by factors such as employability, scholarship opportunities, and the growth of flexible learning options like online platforms. The rising enrollment in science-related programs suggests a national pivot toward innovation and technological development, which has practical implications for curriculum development, research funding, and labor market alignment.

The preference for master's programs over doctoral studies highlights a need for institutions to reassess the structure and incentives of PhD programs to make them more appealing and accessible. Furthermore, the increased participation of mature and female students underscores the importance of inclusive educational policies that support diverse learner needs and promote lifelong learning.

These findings call for strategic planning at both institutional and national levels to support the growing and changing postgraduate student population. There is a clear need for responsive governance, resource allocation, and targeted interventions to sustain and enhance these enrollment trends while ensuring quality and equity in postgraduate education.

### **5.2.3. Postgraduate student's retention and survival rates from the year 2015 to 2024**

The second objective of this study was to evaluate the retention and survival rates of postgraduate students in public universities in Kenya from 2015 to 2024. These indicators are essential in assessing how well institutions are enabling students to persist and succeed through their programs. The improvement in retention rates over the decade reflects the growing effectiveness of institutional support structures in enhancing student engagement and progression. The findings suggest that interventions such as academic advisement, mentorship programs, and better access to online learning resources have contributed to sustained student participation. Notably, the recovery in retention post-COVID-19 illustrates the resilience and adaptability of universities in responding to external challenges.

The disparities in retention across fields of study highlight the need for tailored interventions. Higher retention in sciences and business-related programs signals stronger student engagement and program alignment with career outcomes, while lower rates in humanities suggest the need for enhanced academic and psychosocial support in these disciplines. These findings highlight the importance of continuous investment in student support systems, especially those that are adaptable to changing contexts such as pandemics or economic shifts. For policymakers and university administrators, there is a clear call to institutionalize these supports, ensuring all postgraduate students — regardless of discipline — are equipped to complete their studies successfully.

### **5.2.4 Postgraduate students completion rates from the year 2015 to 2024**

The third objective was to analyze postgraduate students' completion rates from 2015 to 2024, with a focus on the key factors influencing academic success in Kenya's

postgraduate education system. The findings demonstrate a marked improvement in completion rates over the ten-year period, signaling enhanced effectiveness in academic programming and institutional support mechanisms. The narrowing gender gap in completion rates suggests that targeted interventions promoting gender equity in higher education are yielding positive results. This trend reflects broader social changes and increased access to education for women.

The consistency in program completion time — maintained at two years across the period — points to a well-structured academic system, where improved curriculum delivery and responsive support systems enable students to meet program requirements within expected timelines. This indicates institutional efficiency and underscores the importance of maintaining these supportive measures. Practically, these findings highlight the value of sustained investment in gender-inclusive policies, academic advisement, and curriculum planning. For university leaders and policymakers, ensuring continued focus on these areas will be crucial to maintaining and accelerating completion rates, which are key indicators of institutional performance and national development in higher education.

#### **5.2.5 Relationship between existing postgraduate policies and completion rates.**

The fourth objective sought to establish the relationship between existing postgraduate policies and students' completion rates. The study revealed that a majority of respondents (80%) acknowledged a strong influence of postgraduate policies on completion rates, underscoring the critical role of structured academic frameworks in facilitating timely graduation. While most respondents recognized the value of these policies, 73% rated them as only moderately or slightly effective, signaling inconsistencies in policy implementation and responsiveness to student challenges. This points to a gap between policy formulation and practice, where institutional

guidelines may exist but fall short in addressing real-time academic and administrative hurdles faced by students.

These understandings have practical implications for university governance and policy makers. To improve completion rates, institutions must not only design robust postgraduate policies but also ensure their consistent application across departments. Enhancing transparency, aligning policies with student feedback, and periodically reviewing them for relevance can foster a more enabling academic environment, ultimately supporting better student outcomes

#### **5.2.6 Factors influencing governance structures of postgraduate students' graduation in public universities in Kenya**

The final objective aimed to examine the challenges facing the governance of postgraduate education in public universities in Kenya. The findings of the study identified several governance-related obstacles that hinder the effective delivery and completion of postgraduate programs. Chief among these was the issue of funding, with 60% of stakeholders citing insufficient financial resources as a significant barrier. This shortfall adversely affects the capacity of universities to provide adequate infrastructure, quality supervision, and robust research support, thereby impacting the academic experience of postgraduate students.

Enrollment inefficiencies also emerged as a critical challenge, as reported by 55% of the respondents. These included delays in admission processes, bureaucratic hurdles, and poor communication, all of which contribute to a frustrating experience for students and delay the start and progression of their academic programs. In addition, only 15% of stakeholders rated the governance structures as “very effective,” highlighting widespread dissatisfaction with the current systems in place. This low

confidence suggests an urgent need for institutional reforms aimed at enhancing administrative transparency, decision-making efficiency, and policy implementation. The findings point to the need for a holistic review of governance systems in public universities, focusing on increased funding, streamlined enrollment procedures, and capacity-building for leadership and management teams to foster a more supportive environment for postgraduate education.

### **5.3 Conclusions**

#### **5.3.1 Trends among post graduate student's enrolment rates in public universities in Kenya from the year 2015 -2024**

This study concludes that postgraduate student enrollment rates in public universities in Kenya experienced significant growth from the year 2015 to 2024, with an overall increase of 90%. This rise highlights a strong emphasis on advanced education within the country. The analysis revealed a notable shift from humanities (which saw a decrease from 30% to 20%) to sciences (increasing from 40% to 55%), indicating a growing recognition of the importance of scientific fields to address modern challenges. The preference for master's programs over PhD programs points to a trend toward quicker academic qualifications, likely driven by a focus on employability and practical application, funding and durability. University A retained the highest overall enrollment but experienced a decrease in its market share, while University C gained traction suggesting that competitive offerings and strategic branding influenced enrollment dynamics.

#### **5.3.2 Postgraduate student's retention and survival rates from 2015-2024**

This study concludes that from 2015 to 2024, postgraduate student retention and survival rates in Kenyan public universities showed significant improvement increasing from 75% in the year 2015 to 87% in 2024. This positive trend highlights

the growing effectiveness of support services and strategic adaptations by universities to enhance student persistence. The introduction of mentorship programs, academic advising, workshops and increased funding for student initiatives contributed significantly to these improvements. Although the COVID-19 pandemic temporarily disrupted progress in 2020, institutions successfully adapted to these challenges particularly through enhanced online learning resources and continuous feedback mechanisms. The analysis by gender indicates progress toward gender parity with female enrollment rising steadily and surpassing male enrollment during the pandemic year of 2020, showcasing resilience and effective support structures.

### **5.3.3 Postgraduate students completion rates from 2015-2024**

This study concludes that there has been a significant increase in postgraduate completion rates in Kenya from 2015 to 2024, with total completions rising from 10,000 to 19,000. This upward trend highlights the growing emphasis on advanced education as a pathway to enhanced qualifications within public universities. Additionally, while male students consistently achieved higher completion numbers than their female counterparts this narrowing gap signifies progress toward greater gender equity in postgraduate education. The stability of the completion timeframe at two years across all years suggests that students are efficiently navigating their programs likely due to improvements in curriculum delivery and support services.

### **5.3.4 Relationship between existing postgraduate policies and completion rates**

This study concludes that postgraduate policies play a significant role in improving completion rates with the majority of stakeholders recognizing their positive impact. However, there is evidence that these policies are not yet fully effective as gaps remain in implementation, flexibility and resource allocation. The positive relationship between policies and completion rates suggests that when properly designed and

implemented, policies can enhance student success. Nonetheless, barriers such as insufficient resources and rigid policy requirements need to be addressed for these policies to realize their full potential.

### **5.3.5 Factors influencing governance structures of postgraduate students' graduation in public universities in Kenya**

This study concludes that the governance of postgraduate education in public universities in Kenya is hindered by several critical challenges. The most prominent of these challenges include insufficient funding, inefficiencies in enrollment processes, low effectiveness of governance structures, and bureaucratic barriers within the administration. These issues contribute to delays in program initiation, inadequate support for postgraduate students and overall inefficiencies in the education system.

## **5.4 Recommendations**

### **5.4.1 Trends among post graduate students' enrolment rates in public universities in Kenya from 2015 -2024**

References to the findings of this study recommends that:

- i. Universities should continue to invest in and expand their science and technology programs to meet the growing demand and relevance of these fields in addressing contemporary global and local needs
- ii. Institutions should create tailored scholarships and funding opportunities for science and technology programs to further encourage enrollment in these fields.

#### **5.4.2 Postgraduate student's retention and survival rates from 2015-2024**

References to the findings of this study recommends that:

- i. Universities should implement targeted support programs for female postgraduate students including mentorship and networking opportunities, to further close the gender gap in completions.
- ii. Universities should introduce tailored academic advisory programs for students in low-retention fields like humanities to bridge gaps in support.
- iii. Universities should institutionalize flexible learning modes, such as hybrid and modular programs to cater to diverse student needs and improve survival rates.

#### **5.4.3 Postgraduate students completion rates from 2015-2024**

References to the findings of this study recommend that:

Given the relationship between support services and completion rates, universities should continue to invest in and expand academic support services, career counseling, financial aid and mentorship programs to further support student success.

#### **5.4.4 Relationship between existing postgraduate policies and completion rates.**

References to the findings of this study recommend that:

- i. Universities should establish a feedback mechanism involving students and faculty to regularly evaluate and refine postgraduate policies.
- ii. Institutions should develop adaptive policy frameworks that allow for exceptions in cases of unforeseen challenges, such as pandemics or economic disruptions.
- iii. Universities should align policy implementation with adequate funding, staffing and monitoring systems to ensure consistency and effectiveness.

#### **5.4.5 Factors influencing governance structures of postgraduate students' graduation in public universities in Kenya**

References to the findings of this study recommend that:

- i. Universities and government stakeholders should streamline administrative processes by leveraging technology to reduce bureaucratic inefficiencies.
- ii. Governance structures should be revamped to include more student representation, ensuring that student needs are effectively addressed in decision-making.
- iii. Universities should establish performance-based accountability mechanisms within governance structures to enhance efficiency and responsiveness.

#### **5.5 Suggestion for further studies**

- i. Future research could explore a comparative study of different governance models in public versus private universities in Kenya and their influence on postgraduate students' completion rates. This would provide understandings into best practices and identify areas for policy harmonization.
- ii. Further studies could investigate the relationship between funding structures (both government and institutional) and their impact on enrollment, retention, and completion rates of postgraduate students. This would help assess the effectiveness of financial support programs and recommend improvements.
- iii. Expanding the geographical scope, future studies could explore the impact of postgraduate policies on student outcomes across East African countries. This would offer comparative understandings into policy effectiveness and regional best practices.

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## APPENDICES

### **Appendix I: Introduction Letter**

Hello respondent,

My name is Clinton Mulweye Musasia, a student of Masinde Muliro University of Science and Technology pursuing Doctor of philosophy in education management and policy studies. I am required to carry out research as part of the requirement for the completion of the course. Your response would be completely anonymous and will be used by the researcher for the purpose of the study only. All information provided will be confidential and therefore do not write your name or name of your university anywhere on the questionnaires lists.

Yours sincerely,

Signature.....

Clinton Musasia

## Appendix II: Questionnaire for Postgraduate Students

You have been selected to participate in the research on the graduate school governance structures and post graduate students completion rates in public universities, Kenya. Please respond accordingly as guided by the questions. All the information will remain confidential and shall only be used for the purpose of this research.

### SECTION A: Demographic Information

Please **Tick / write down** the appropriate response.

1. Please indicate your gender

1 Male [ ]

2 Female [ ]

Prefer not to say [ ]

2. Please indicate your age brackets

20-30 years [ ]

31-40 years [ ]

41-50 years [ ]

50 years and above [ ]

3. Please indicate your marital status of the respondents

Single [ ]

Married [ ]

Divorced [ ]

Widowed [ ]

Other (Please specify) .....

4. Please name your:

i) University.....

ii) Department.....

...

5. Please indicate your current level of study

Masters [ ]

PhD [ ]

Other (Please specify) .....

6. Please indicate your year of Enrolment.....

**SECTION B: Trends among post graduate student’s enrolment rates in public universities in Kenya from 2015 -2024.**

7. Please indicate the enrolment of as per the following section.

year	Postgraduate Student Enrollment	Enrollment Trends by Field of Study	Enrollment Trends by Program	Enrollment Trends by University	Influencing Factors	Demographic Shifts
2015						
2016						
2017						
2018						
2019						
2020						
2021						
2022						
2023						
2024						

**SECTION C: Postgraduate student’s retention and survival rates from 2015-2024.**

8. Please indicate postgraduate student’s retention and survival rates from 2015-2024 as per the following section.

year	Overall Retention Trends	Percentage of Students Remaining Enrolled	Correlation of Support Services with Retention	Retention Variation by Field/Department	Comments
2015					
2016					
2017					
2018					
2019					
2020					
2021					
2022					
2023					
2024					

**9. Data on postgraduate students enrolment by Gender**

<b>s/no</b>				
	<b>YEAR</b>	<b>Males</b>	<b>females</b>	<b>Totals</b>
	<b>2015</b>			
	<b>2016</b>			
	<b>2017</b>			
	<b>2018</b>			
	<b>2019</b>			
	<b>2020</b>			
	<b>2021</b>			
	<b>2022</b>			
	<b>2023</b>			
	<b>2024</b>			

**SECTION D: ANALYZE POSTGRADUATE STUDENTS COMPLETION RATES FROM 2015-2024**

10. What percentage of postgraduate students successfully completed their programs each year from 2015 to 2024 in public universities in Kenya?

Less than 50%

Between 50% and 75%

Between 75% and 90%

More than 90%

Not sure

11. Do completion rates differ between Master's and doctoral programs in public universities in Kenya during the period 2015-2024?

Master's programs had higher completion rates

Doctoral programs had higher completion rates

Were similar for both master's and doctoral programs

Not sure

12. What percentage of postgraduate students dropped out of their programs each year from 2015 to 2024 in public universities in Kenya?

Less than 10%

Between 10% and 25%

Between 25% and 50%

More than 50%

Not sure

13. To what extent do academic support services, financial aid availability, and program quality correlate with postgraduate student completion rates in public universities in Kenya over the study period?

Strongly correlated

Moderately correlated

Weakly correlated

No correlation

Not sure

**14. Data on postgraduate students completion rates by Gender and number of years**

<b>s / n o</b>					
	<b>YEAR</b>	<b>Males</b>	<b>Female</b>	<b>Totals</b>	<b>No of years</b>
	<b>2015</b>				
	<b>2016</b>				
	<b>2017</b>				
	<b>2018</b>				
	<b>2019</b>				
	<b>2020</b>				
	<b>2021</b>				
	<b>2022</b>				
	<b>2023</b>				
	<b>2024</b>				

**SECTION E: RELATIONSHIP BETWEEN EXISTING POSTGRADUATE POLICIES AND COMPLETION RATES.**

15. To what extent do existing postgraduate policies influence completion rates in public universities in Kenya from 2015 to 2024?
- Strongly influence completion rates [ ]
  - Moderately influence completion rates [ ]
  - Weakly influence completion rates [ ]
  - No influence on completion rates [ ]
  - Not sure [ ]
16. Which specific postgraduate policies have the greatest impact on completion rates according to stakeholders in public universities in Kenya?
- Admission criteria [ ]
  - Program structure and requirements [ ]
  - Academic support services [ ]
  - Financial aid availability [ ]
  - Not sure [ ]
17. How do stakeholders perceive the effectiveness of existing postgraduate policies in promoting completion rates in public universities in Kenya over the study period?
- Very effective [ ]
  - Moderately effective [ ]
  - Slightly effective [ ]
  - Not effective at all [ ]
  - Not sure [ ]
18. Are there any significant correlations between specific components of existing postgraduate policies (e.g., academic support services, financial aid availability) and completion rates in public universities in Kenya?
- Strong positive correlation [ ]
  - Moderate positive correlation [ ]
  - Weak positive correlation [ ]
  - No correlation [ ]
  - Not sure [ ]

19. How do postgraduate completion rates change over time in response to updates or revisions made to existing postgraduate policies in public universities in Kenya from 2015 to 2024?

Completion rates increase after policy updates [ ] [ ]

Completion rates decrease after policy updates [ ] [ ]

Completion rates remain unchanged after policy updates [ ] [ ]

Not sure [ ] [ ]

20. What are the perceived barriers or challenges associated with existing postgraduate policies that may hinder or facilitate completion rates in public universities in Kenya?

Lack of clarity in policy implementation [ ] [ ]

Insufficient resources allocated for policy enforcement [ ] [ ]

Inflexibility of policy requirements [ ] [ ]

Not sure [ ] [ ]

## **SECTION F: CHALLENGES FACING GOVERNANCE OF POSTGRADUATE STUDENTS EDUCATION IN PUBLIC UNIVERSITIES KENYA**

21. What are the perceived challenges in the governance of postgraduate student education in public universities in Kenya from 2015 to 2024?

Insufficient funding for postgraduate programs [ ] [ ]

Inadequate infrastructure and resources for postgraduate education [ ] [ ]

Lack of clear policies and guidelines for postgraduate governance [ ] [ ]

Limited academic support services for postgraduate students [ ] [ ]

Not sure [ ] [ ]

22. Which specific governance issues are considered the most pressing by stakeholders involved in postgraduate education in public universities in Kenya?

Admission and enrollment processes [ ] [ ]

Curriculum development and implementation [ ] [ ]

Academic supervision and mentorship [ ] [ ]

Research support and funding [ ] [ ]

Not sure [ ] [ ]

23. How do stakeholders perceive the effectiveness of current governance structures and mechanisms in addressing challenges in postgraduate student education in public universities in Kenya?
- Very effective [  ]
  - Moderately effective [  ]
  - Slightly effective [  ]
  - Not effective at all [  ]
  - Not sure [  ]
24. Are there any significant correlations between specific governance challenges and postgraduate student completion rates in public universities in Kenya?
- Strong positive correlation [  ]
  - Moderate positive correlation [  ]
  - Weak positive correlation [  ]
  - No correlation [  ]
  - Not sure [  ]
25. How have the identified governance challenges evolved or changed over time in public universities in Kenya from 2015 to 2024?
- Challenges have increased [  ]
  - Challenges have decreased [  ]
  - Challenges have remained stable [  ]
  - Not sure [  ]
26. What are the perceived barriers or obstacles hindering effective governance of postgraduate student education in public universities in Kenya according to stakeholders?
- Institutional bureaucracy and administrative hurdles [  ]
  - Lack of stakeholder engagement and collaboration [  ]
  - Inadequate capacity and expertise among governance bodies [  ]
  - Not sure [  ]

## **APPENDIX III: INTERVIEW GUIDES**

### **Section A: Interview Guides for CoDs**

1. Based on your experience, what trends have you observed in postgraduate student enrollment rates in this department from 2015 to 2024?
2. Can you share any specific policies or initiatives that have been implemented to improve postgraduate student retention and survival rates in the past decade?
3. What factors do you believe significantly contribute to the completion rates of postgraduate students in your department?
4. How do the existing postgraduate policies impact the completion rates of students in public universities in Kenya?
5. What governance structures are in place to support postgraduate students in your department, and how effective are they?
6. What challenges do you face in governing postgraduate education, and how do these challenges affect student completion rates?
7. Are there any specific support systems or resources provided to postgraduate students to help them complete their studies on time?
8. How frequently are postgraduate policies reviewed and updated to address the evolving needs of students and the academic environment?
9. Can you discuss any notable differences in completion rates among different postgraduate programs within your department?

10. What recommendations would you make to improve governance structures and enhance the completion rates of postgraduate students in public universities in Kenya?

### **Section B: Interview Guides for Academic Registrars**

1. How have postgraduate student enrollment rates in public universities evolved from 2015 to 2024, and what factors have influenced these trends?
2. What specific measures have been implemented to enhance the retention and survival rates of postgraduate students over the past decade?
3. Can you highlight any significant patterns or changes in postgraduate student completion rates from 2015 to 2024?
4. In what ways do existing postgraduate policies either support or hinder student completion rates?
5. What governance structures are in place within Academic and Student Affairs to support postgraduate students, and how effective are they?
6. What are the primary challenges faced by the Academic and Student Affairs office in governing postgraduate education, and how do these challenges impact student outcomes?
7. Are there any targeted support programs or resources provided to postgraduate students to help ensure their timely completion of studies?
8. How often are postgraduate policies reviewed and updated, and what processes are involved in making these updates?
9. Can you discuss any disparities in completion rates across different postgraduate programs or disciplines?

10. What recommendations would you offer to improve the governance structures and enhance the completion rates of postgraduate students in public universities in Kenya?

### **SECTION C: INTERVIEW GUIDES FOR DEANS AND DIRECTORS**

1. How have postgraduate enrollment trends changed in your institution from 2015-2024?
2. What factors do you think have influenced these trends?
3. Are there any specific policies or initiatives that have impacted postgraduate enrollment? If so, how?
4. What are the key factors affecting postgraduate student retention in your institution?
5. What measures have been implemented to improve student retention and survival rates?.
6. In your opinion, how effective have these measures been?
7. What has been the trend in postgraduate students' completion rates from 2015-2024?1
8. What are the main reasons why some postgraduate students do not complete their programs on time?
9. What interventions can be introduced to improve completion rates?
10. What postgraduate policies currently exist in your institution?
11. How do these policies impact student retention and completion rates?
12. What policy changes would you recommend to enhance postgraduate student success?
13. What are the major governance-related challenges affecting postgraduate education?
14. How do administrative and structural challenges affect postgraduate students' progress?

15. What role can university leadership play in improving governance for postgraduate studies?

#### **SECTION D: INTERVIEW GUIDES FOR LECTURERES**

1. How have postgraduate enrollment trends changed in your institution from 2015-2024?
2. What factors do you think have influenced these trends?
3. Are there any specific policies or initiatives that have impacted postgraduate enrollment? If so, how?
4. What are the key factors affecting postgraduate student retention in your institution?
5. What measures have been implemented to improve student retention and survival rates?.
6. In your opinion, how effective have these measures been?
7. What has been the trend in postgraduate students' completion rates from 2015-2024?1
8. What are the main reasons why some postgraduate students do not complete their programs on time?
9. What interventions can be introduced to improve completion rates?
10. What postgraduate policies currently exist in your institution?
11. How do these policies impact student retention and completion rates?
12. What policy changes would you recommend to enhance postgraduate student success?
13. What are the major governance-related challenges affecting postgraduate education?
14. How do administrative and structural challenges affect postgraduate students' progress?
15. What role can university leadership play in improving governance for postgraduate studies?

## **SECTION E: INTERVIEW GUIDES FOR STUDENTS REPRESENTATIVE**

1. How have postgraduate enrollment trends changed in your institution from 2015-2024?
2. What factors do you think have influenced these trends?
3. Are there any specific policies or initiatives that have impacted postgraduate enrollment? If so, how?
4. What are the key factors affecting postgraduate student retention in your institution?
5. What measures have been implemented to improve student retention and survival rates?.
6. In your opinion, how effective have these measures been?
7. What has been the trend in postgraduate students' completion rates from 2015-2024?1
8. What are the main reasons why some postgraduate students do not complete their programs on time?
9. What interventions can be introduced to improve completion rates?
10. What postgraduate policies currently exist in your institution?
11. How do these policies impact student retention and completion rates?
12. What policy changes would you recommend to enhance postgraduate student success?
13. What are the major governance-related challenges affecting postgraduate education?
14. How do administrative and structural challenges affect postgraduate students' progress?
15. What role can university leadership play in improving governance for postgraduate studies?

## APPENDIX IV: AUTHORIZATION LETTER



MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY (MMUST)

Tel: 056-30870  
Fax: 056-30153  
E-mail: [director@ps.mmust.ac.ke](mailto:director@ps.mmust.ac.ke)  
Website: [www.mmust.ac.ke](http://www.mmust.ac.ke)

P.O Box 190  
Kakamega – 50100  
Kenya

### Directorate of Postgraduate Studies

Ref: MMU/COR: 509099

Date: 24<sup>th</sup> July 2024

Clinton Musasia  
EPS/H/01-70334/2022,  
P.O. Box 190-50100,  
KAKAMEGA.

Dear Mr. Musasia,

#### RE: APPROVAL OF PROPOSAL

I am pleased to inform you that the Directorate of Postgraduate Studies has considered and approved your Ph.D. proposal entitled: *“Graduate School Governance Structures and Post Graduate Students Completion Rates in Public Universities, Kenya”* and appointed the following as supervisors:

1. Prof. Stephen Odebero - MMUST
2. Prof. Judith Achoka - MMUST
3. Prof. Lydia Wamocha - MMUST

You are required to submit through your supervisor(s) progress reports every three months to the Director Postgraduate Studies. Such reports should be copied to the following: Chairman, School of Education Graduate Studies Committee and Chairman, Department of Education Planning and Management. Kindly adhere to research ethics consideration in conducting research.






It is the policy and regulations of the University that you observe a deadline of three years from the date of registration to complete your Ph.D. thesis. Do not hesitate to consult this office in case of any problem encountered in the course of your work.

We wish you the best in your research and hope the study will make original contribution to knowledge.

Yours Sincerely,

Dr. Consolata Ngala  
DEPUTY DIRECTOR, DIRECTORATE OF POSTGRADUATE STUDIES

# APPENDIX V: NACOSTIC PERMIT

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 432953	Date of Issue: 22/August/2024
<b>RESEARCH LICENSE</b>	
	
<p>This is to Certify that Mr., <b>CLENTON MUSASEA MULWEYE</b> of Masinde Muliro University of Science and Technology, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Bungoma, Busia, Garissa, Homa Bay, Kakamega, Kericho, Kisumu, Kiambu, Kajiado, Kisumu, Kwana, Laikipia, Meru, Nairobi, Nakuru, Nandi, Siaya, Uasin-Gishu, Vihiga on the topic: <b>GRADUATE SCHOOL GOVERNANCE STRUCTURES AND POST GRADUATE STUDENTS COMPLETION RATES IN PUBLIC UNIVERSITIES, KENYA</b>, for the period ending : 22/August/2025.</p>	
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## APPENDIX VI: FORMULAE FOR COHORT ANALYSIS

### 1. Grade Repeater Rate (G.R.R):

- Definition: The number of students who repeated the same grade in the subsequent year divided by the number of students enrolled in the same grade in the previous year.
- Formula:

$$\text{Grade Repeater Rates (G.R.R)} = \frac{R_{k+1}^k}{N_k^k + 1}$$

### 2. Grade Dropout Rate (G.D.R):

- Definition: The number of students who cannot be accounted for once the number of those promoted and those repeating have been deducted from the original enrollment in the previous year, divided by the original enrollment for the grade.
- Formula:

$$\text{Grade Dropout Rate (G.D.R)} = \frac{N_k^k - (N_{k+1}^{k+1} - R_{k+1}^k - R_{k+2}^k) - R_k^k}{N_k^k}$$

### 3. Cohort Wastage Rate (C.W.R):

- Definition: The loss of students which occurs between the first and the last grade of a cycle as the cohort passes through a given level of education.
- Formula:

$$\text{Cohort Wastage Rate (C.W.R)} = \frac{N_k^k - (N_{k+3}^{k+3} - R_{k+3}^k - R_{k+4}^k)}{N_k^k}$$

### 4. Average Year per Student/Completer Rate (A.Y.C):

- Definition: The average years required to produce a graduate. It is estimated by the sum of enrollment in each grade divided by the number of graduates.
- Formula:

$$\text{Year per Student/Completer Rate (A.Y.C)} = \frac{N_k^k + N_{k+1}^{k+1} + N_{k+2}^{k+2} + N_{k+3}^{k+3} + \dots}{G_{k+3}}$$

## APPENDIX VII: FORMULA FOR SURVIVAL, DROP OUT AND COMPLETION RATES

### 1. Survival Rate

The survival rate measures the percentage of students who continue their studies without dropping out.

$$\text{Survival Rate} = \left( \frac{\text{Total students remaining at a given year}}{\text{Total students initially enrolled}} \right) \times 100$$

#### Citation:

Tinto, V. (1993). *Leaving College: Rethinking the Causes and Cures of Student Attrition*. University of Chicago Press.

### 2. Dropout Rate

The dropout rate calculates the proportion of students who leave before completing their program.

$$\text{Dropout Rate} = \left( \frac{\text{Students who left before completion}}{\text{Total students initially enrolled}} \right) \times 100$$

#### Citation:

Astin, A. W. (1997). *What Matters in College? Four Critical Years Revisited*. Jossey-Bass.

### 3. Graduation Rate

The graduation rate indicates the proportion of students who successfully complete their program within a specified time frame.

$$\text{Graduation Rate} = \left( \frac{\text{Number of students who graduate}}{\text{Total students initially enrolled}} \right) \times 100$$

#### Citation:

Pascarella, E. T., & Terenzini, P. T. (2005). *How College Affects Students: A Third Decade of Research*. Jossey-Bass.

### APPENDIX VIII: RETENTION TRENDS

$$\text{Retention Rate} = \left( \frac{\text{Number of students retained in a given year}}{\text{Total students initially enrolled}} \right) \times 100$$

Year	Percentage of Students Remaining Enrolled (%)
2015	78
2016	80
2017	82
2018	81
2019	83
2020	85
2021	87
2022	88
2023	89
2024	90

*Source: Field Data, 2024*

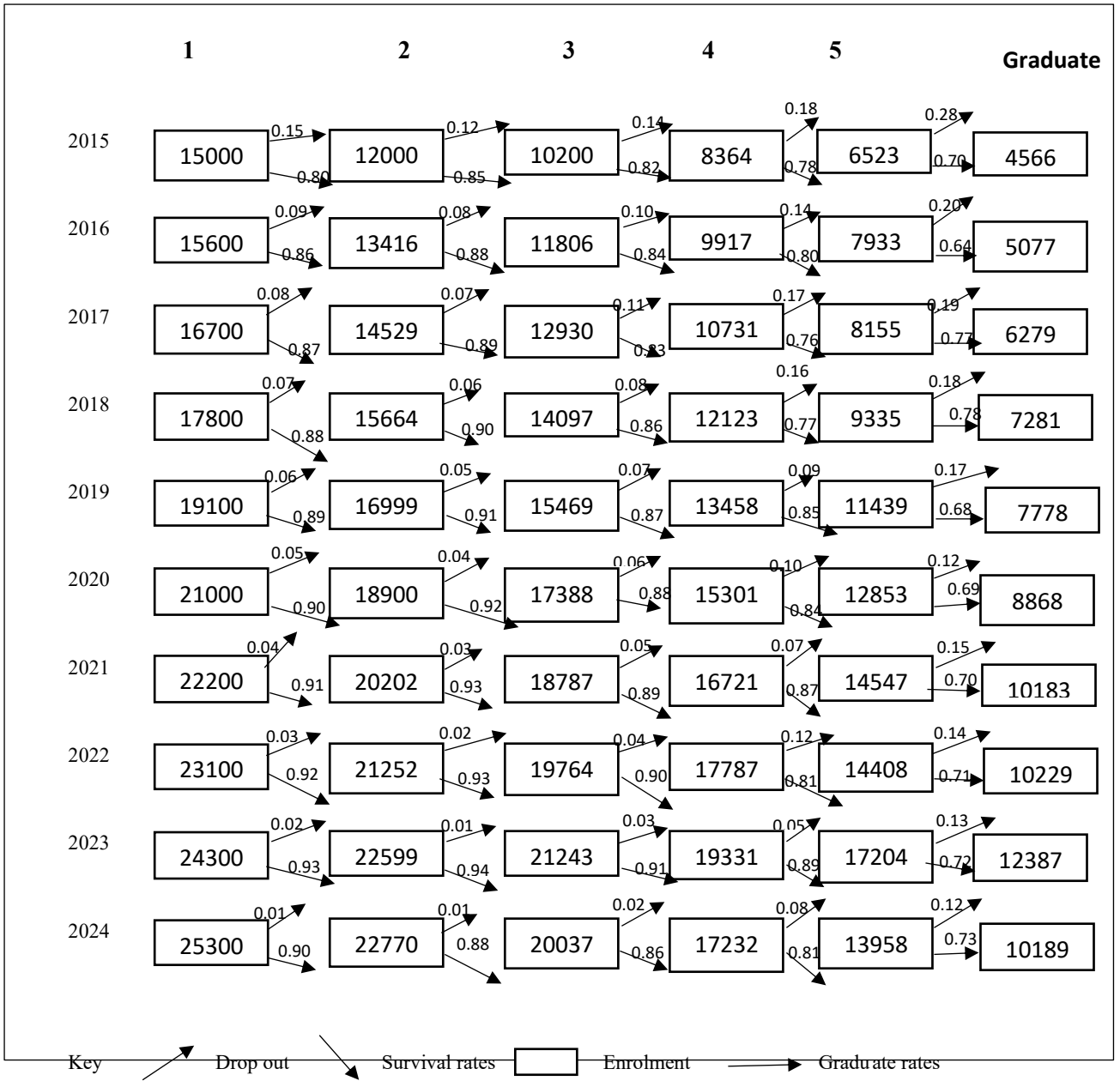
**APPENDIX IX: POSTGRADUATE STUDENT’S RETENTION BY GENDER**

$$\text{Retention Rate} = \left( \frac{\text{Number of students retained in a given year}}{\text{Total students initially enrolled}} \right) \times 100$$

<b>Year</b>	<b>Males</b>	<b>Females</b>	<b>Totals</b>
<b>2015</b>	8,500	6,500	15,000
<b>2016</b>	8,800	7,400	16,200
<b>2017</b>	9,000	8,500	17,500
<b>2018</b>	9,500	9,200	18,700
<b>2019</b>	10,000	10,000	20,000
<b>2020</b>	11,000	11,500	22,500
<b>2021</b>	12,000	12,000	24,000
<b>2022</b>	12,500	13,000	25,500
<b>2023</b>	13,000	14,000	27,000
<b>2024</b>	14,000	14,500	28,500

*Source: Field Data, 2024*

## APPENDIX X: FLOW CHART



**Trends and flow of students 2015-2024**

## **APPENDIX XI: PUBLIC UNIVERSITIES IN KENYA (2015-2024)**

### **Established Before 2015**

- University of Nairobi (UoN)
- Moi University (MU)
- Kenyatta University (KU)
- Egerton University (EU)
- Jomo Kenyatta University of Agriculture and Technology (JKUAT)
- Maseno University (MASENO)
- Masinde Muliro University of Science and Technology (MMUST)

### **Established in 2013**

- Dedan Kimathi University of Technology
- Chuka University
- Technical University of Kenya
- Technical University of Mombasa
- Pwani University
- Kisii University
- University of Eldoret
- Maasai Mara University
- Jaramogi Oginga Odinga University of Science and Technology
- Laikipia University
- South Eastern Kenya University
- Meru University of Science and Technology
- Multimedia University of Kenya
- University of Kabianga
- Karatina University

### **Established in 2015**

- Kibabii University