

**INSTITUTIONAL PRACTICES INFLUENCING TRENDS IN ENROLMENT
AND COMPLETION RATES IN DOCTORATE DEGREE PROGRAMMES
FROM SELECTED PUBLIC UNIVERSITIES IN KENYA**

MOTANYA, JARED OCHWANGI

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**A THESIS SUBMITTED IN FULFILMENT OF THE REQUIREMENTS
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DECLARATION

I confirm that this thesis is my original work and has not been presented in any other university/institution for consideration of any certification. This research thesis has been complemented by referenced sources duly acknowledged. Where text, data (including spoken words), graphics, pictures or tables have been borrowed from other sources, including the internet, these are specifically accredited and references cited using APA 7th edition system and in accordance with anti-plagiarism regulations.

Signature:

Date:

Jared Ochwangi Motanya-E83/23424/2012

Department of Educational Foundations

Supervisors

We confirm that the work reported in this thesis was carried out by the student under our supervision as University Supervisors.

Signature:

Date:

Dr. Nyambura Salome

Department of Educational Foundations

Kenyatta University

Signature:

Date:

Dr Peter M. Gathara

Department of Educational Foundations

Kenyatta University

DEDICATION

To my dear wife Carolyne Ikonge, children: Edgar Motanya, Trevor Ephraim Barake
and Elsheba Moraa.

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Abbreviations and Acronyms

CGS	Council of Graduate Schools
CHE	Commission for Higher Education
CPD	Chairperson of Department
CUE	Commission for University Education
DHET	Department of Higher Education and Training
EU	Egerton University
HEIs	Higher Education Institutions
HERANA	Higher Education Research and Advocacy Network in Africa
HoD	Head of Department
JKUAT	Jomo Kenyatta University of Agriculture and Technology
KU	Kenyatta University
MOEST	Ministry of Education Science and Technology
MU	Moi University
NACOSTI	National Commission for Science, Technology and Innovation
NRF-K	National Research Fund Kenya
ODEL	Open Distance and E-Learning
OECD	Organization for Economic Cooperation and Development
PhD	Doctor of Philosophy
SPSS	Statistical Package for Social Sciences
STEM	Science Technology and Mathematics
UNESCO	United Nations Education, Scientific and Cultural Organisation
UoN	University of Nairobi

ABSTRACT

Doctorates boost scientific innovations and productivity of a country leading to growth and expansion of the economy. However, studies on doctorate education indicate that most students in Kenyan public universities take long to complete their doctorate programmes. Moreover, enrolment data from selected Kenyan public universities show that fewer students enroll for doctorate programmes in comparison with those who register for Master and Bachelors' programmes. The purpose of this study was to establish the reasons for low enrolment rates and long completion time by the doctorate students in selected Kenyan public universities. The study was guided by the following objectives: first, to analyse the trends in doctorate degree programmes enrolment and completion rates from selected public universities in Kenya for the last fifteen years; second, to establish how institutional doctorate degree programmes procedures influence enrolment and completion in selected Kenyan public universities; third, to establish how institutional doctorate supervision practices influence completion in doctorate programmes from selected Kenyan public universities and; fourth, to explore how institutional resources influence doctorate degree enrolment and completion rates in selected public Kenyan universities. The Social Support Theory and the Involvement Theory were utilised to explore the phenomenon of low enrolment and completion rates of doctorates from selected Kenyan public universities. The study employed the mixed methods research design. Data was collected from four purposively sampled universities using questionnaires, analysis of documents and interview schedules. Qualitative data was coded and then thematically analysed guided by the study objectives while quantitative data was analysed using percentages and graphs. The study revealed that between 2003 and 2017, there was low doctorate programmes enrolment and completion rates at the selected public Universities in Kenya. This was demonstrated from trends in the numbers of those who enrolled and those who graduated. The trends revealed that more males than females enrolled and completed their studies with the highest being between 2008 and 2013. Additionally, the study found out that institutional doctorate programme procedures, doctorate programme supervision practices and institutional doctorate programme resources directly impact on doctorate enrolment and graduation from the selected public universities in Kenya. Universities admission procedures into doctorate programmes were also found to take long. Furthermore, doctorate supervision had challenges universities had insufficient number of qualified academic staff. The study concludes that low enrolment rate and long duration in doctorate study completion are caused by inappropriate systemic practices, inadequate academic and administrative staff, and insufficient physical and technological infrastructure. The research recommends: institutional doctorate programme procedures' policies to be standardized across universities; the Ministry of Education through the State Department of University Education to have a robust funding programme for the doctorate programmes and; formulation of doctorate supervision guidelines to make it mandatory for the supervisors to jointly meet on a regular basis with the doctorate candidate for harmonized guidance. The findings of this research will be resourceful to university policy makers, administrators and lecturers to improve on institutional policy framework which could be used to enhance doctorate degree enrolment and completion in Kenyan public universities.

CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.0 Introduction

The problem of low doctorate degree programmes enrolment and completion rates in Kenyan Public universities has persisted over time (Ronguno, 2016). This is manifested through the limited number of doctorate degree graduates from Kenyan public universities. This is despite rapid expansion and high investments in favour of higher education sector. The number of undergraduate students far outweigh doctorate holders who are supposed to work as teachers and researchers in these institutions of higher learning.

This chapter presents the background to the study, the statement of the problem, objectives, and research questions. It also describes the significance of the study, scope, limitation and organization of the study.

1.1 Background to the Study

There is increasingly high demand for Doctorate degree holders both in developed and developing nations globally (Cloete, et al. 2015; Cyranoski et al. 2011). This increasing demand is linked to their ability to stimulate much needed national economic development and enhance technological innovation. This demand is further exacerbated by the need to prepare doctorate programme candidates for future career prospects, boost continuous professional development and enhance their employability skills. Furthermore, it meets the candidates' personal self-satisfaction in the area of

specialisation and leads to knowledge production (Wellington, 2013). Availability of sufficient professional doctorates boost scientific innovations and productivity leading to massive growth and expansion in the economies (Peak & Blumbach, 2018). The established economies of the world have utilised findings from doctorate research to potentially expand their productivity leading to massive growth.

Despite this increased demand, the global trends in doctorate degree programme enrolment and graduation rates has two parallel fronts; upward trend in developed nations and stagnating or regressing trends in the developing nations. On one hand, doctorate graduation rates in developed nations of the world has reached a saturation point as in the case of China where over 50, 000 doctorate degrees were produced in the year 2011-2012 surpassing even the US and Japan. China's success is attributed to the policy of recruiting and retaining through hiring one thousand doctorate degree holders yearly (Majumder, 2014). Developing countries on the other hand have less than 53 doctorate holders per million of the total population while doctorate enrolment remain low at 87 per million of the population. Consequently, this low number of those enrolling and graduating with doctorate degrees and the long time to attainment of a doctorate degree is creating shortages leading to inefficiencies (MacGregor, 2013; Mohamedbhai, 2020; Molla & Cuthbert, 2016).

Developing countries are in dire need of doctorate holders to support expansion in their higher education systems, stimulate research and innovation in order to prompt much needed socioeconomic development. The process of enrolling into a doctorate

programme and consequently graduating with a doctorate degree is a lengthy and demanding process (MacGregor, 2013; Cloete, Sheppard and Bailey, 2015; Moss 2016). It is estimated that 40% of doctorate candidates do not complete their programmes while completion time takes between seven to ten years of study in North America and OECD countries. The reasons for such a phenomena have been attributed to students' characteristics, candidate-advisor relationship as well as integration within the faculty (Litalien, 2015).

Most candidates who enroll into doctorate degree programmes take long period of time to completion and thus earn the degree or some do not complete at all. This is despite the huge budgets in favour of the education sector in these countries.

Globally, enrolment and completion of doctorate degree is a measure on the efficiency of higher education system. Consequently, management of doctorate programmes, the quality of admission process, availability of both academic and administrative staff, funding, mentoring programmes at doctorate levels, supervision of doctorate candidates, time to doctorate completion, the number admitted into doctorate programmes versus those graduating and study environment constitute institutional variables that impact on enrolment, completion and quality of doctorate education (Council of Graduate Schools, CGS, 2011).

Low Enrolment, poor quality and low completion rates of doctorate degrees for a long time among universities in Europe, USA and Australia was associated with inefficient

doctorate degree supervision, insurmountable thesis topics and untenable funding (CGS, 2006; Pitchforth, et al. 2012). This led to high dropout rates, prolonged period of study or even delayed graduation. To address this phenomenon, most universities in Europe and America introduced a raft of policy frameworks. Germany for instance, developed highly structured doctorate programmes with sufficient supervisors to guide the candidates who were already enrolled. She also accelerated the duration into an average of three years to earn a doctorate degree while maintaining the quality thus attracting many doctorate candidates. Furthermore, universities introduced continual charges on research students whose work extended beyond stipulated timelines by respective universities. In the United States, the Harvard University instituted policy framework for doctorate degree candidates to constantly receive progressive report detailing expectations and their yearly standing. These interventions improved doctorate degree programme completion rates by 25.00% and 16.00% in humanities and social sciences respectively between 2005 and 2009 (Protivnak & Foss, 2009).

The number of doctorate degree graduates has increased in the last two decades worldwide to around 43%. The trend among Organization for Economic Cooperation and Development (OECD) countries indicates that doctorate graduates in sciences grew by nearly 40.00% between 1998 and 2015 to 48,216 in member countries (Cyranoski et al., 2011: 277; Cloete & Mouton, 2015; McCarthy, 2016). This competitive production of doctorates in these countries was linked to institutional capacity in terms of improved admission procedures, accessibility of funds to the students through scholarships, grants and fellowships, enhanced student supervision, sufficient staff, ample social

environment from the universities and students personal motivation. Furthermore, this high doctorate enrolment and completion rates has been associated with positive and supportive mentor relationships, proper funding policies, good supervisory and tracking of doctorate students' progress (Bair & Hanworth, 2005).

International discourses on doctorate programmes have continued to influence the platform of doctorate studies. One such convention is the European Union Bologna Process of 1999 (Carter, et al, 2013). This convention underscored on the internationalization of doctorate programmes through the transferability of doctorate education across national borders. The convention further underscored on the need to standardize doctorate degrees and their credit ratings. This could then lead to best practices of collaborations (Cotterall, 2013). This move made most European countries to open up their borders for international students to pursue doctorate studies. This saw the rise of doctorate programme enrolments across national universities in Europe from the year 2001 (Molla & Cuthbert, 2016).

Universities among the emerging economies have increased their doctorate enrolment and graduation rates. Indian universities have increased enrolment to 18.00% and graduated 24,300 doctorates per year by 2016. Chinese government through universities has increased fully- funded scholarships for doctorate students, retained, experienced staff at the same time offering mentorship programmes for doctorate students. China and India are poised to produce 40.00% of the world's doctorates by 2030. However, quality of the doctorates produced in China has been a concern rendering difficulties for

such graduates to secure jobs beyond China (Huang, 2017). The Brazilian universities have increased doctorate production to 12,000 per year with the University of Sao Paulo alone graduating 2,244 doctorates in the 2010. The success had been credited to support from the academic community, funding, four year period of study, political commitment, hosting of over 3,000 postgraduate programmes and publications becoming compulsory from the year 2005. The number of students in Malaysia pursuing doctorate degree programmes has increased from about 4,000 in 2002 to almost 40,000 in 2012 while international doctorate degree students had improved from 25.00% in 2002 to nearly 50.00% in 2012 (Hansen, 2013). This had been attributed to the Malaysian government's open policies with regard to improved admission criteria, enhanced student-staff ratios, mobilizing finances, enhanced supervisor-student relationship and tracking of doctorate training programmes.

In Africa, there is a growing recognition that doctorate graduates are critical contributors of knowledge and innovation as a foundation of national wealth (Cloete, et al. 2015; Rey, 2014). Consequently, Africa is in dire need of more doctorate degree holders in order for her to meet the demands of rapidly expanding higher education systems as teachers and renewing the aging professoriates. They will furthermore, enhance research, generate high-level skills needed to expand Africa's economies. Universities in Africa are responding with enthusiasm towards these demands by enhancing doctorate education. This is being effected through establishing graduate schools, provision of academic support programmes of mentorship, funding through

partial or fully-funded scholarships, selecting academic supervisors and training them on conducting research.

African continent, being part of the global community is in need of urgent transformative agenda that will place her in a position to compete with other continents (World Bank, 2015). Consequently, Vision 2030 blue print gives emphasis to gaining relevant expertise for decent work, gender equity and equal access to educational opportunities (UNDP, 2015). Doctorate studies is one key driver towards responding to this challenge. University education has seen tremendous growth for the past one decade opening doors for more Africans to access higher education. However, doctorate programmes have not grown on the same wavelength as undergraduate programmes yet more researchers and teaching staff with such qualification are seriously needed by the African economies. African countries are responding through establishing national bodies to steer doctorate programmes.

South Africa, through the National Research Foundation (NRF) launched a doctorate project with the ultimate intention of multiplying doctorate degree graduates annually. This is reflected in her National Development Plan 2030. This has seen the increase in both enrolment and graduations of doctorates (Cloete, et al.; 2015). This success has been linked to massive government investments towards doctorate production, attracting and retaining local and international staff especially through post-doctoral degree programmes, improving doctorate supervisory capacity among academics, provision of incentives and supporting jobless doctorate graduates. South Africa is also

seen to be a less expensive destination for those in search of doctorate education in terms of cost. However, the recent xenophobic attacks have painted a gloom picture on the security of the country and the country also continues to face financial challenges especially in the doctorate education sector to match demand (Macha & Kadakia, 2017; Dahir, 2019).

The slow pace into doctorate degree enrolment and graduation rates in Africa has been coupled with challenges of inadequate funding, weak supervision and inefficiency in doctorate degree programme management (Sawyerr, 2004; Akala, 2021). By way of example, Egyptian universities had about 35,000 students enrolled for doctorate programmes by 2009 up from 17,663 in 1998. Despite this growth in enrolment; funding, quality of supervision and high rates of joblessness for doctorate graduates remains a big challenge in Egypt. This prompted universities to collaborate with private sector and also turning to international funding to meet the financial shortfall in this sector. These sources have yielded little thus limited funding. This has translated into shortages in equipment, lack of qualified teaching staff and poor compensation for researchers (Yahia et al. 2011). Nevertheless, many African universities lack administrative capacity to mount quality doctorate programmes. Universities take too long to process admission letters, they have no clear policies on the duration for doctorate programmes or whatever may exist on policy framework of mostly three years is impractical as students take a long time from admission to completion. Institutions must, therefore, endeavor to build doctorate programme students' aptitude as well as

preparing the academic staff with current and efficient approaches in doctorate education (Di Pierro, 2007).

Doctorate education in Kenya, like in most nations of the world is experiencing slow expansion despite the surge in numbers of undergraduate and masters students who ought to be serviced by the very doctorate degree graduates. For instance, enrolment at bachelors and masters stands at over 537, 000 and 40, 173 respectively by 2017/2018 academic year while doctorate degree programmes' enrolment remained a meagre 7,146 in all Kenyan universities (Mukhwana, et al. 2016; Nga'ng'a, 2019). Doctorate degree programmes enrolment among public universities in terms of gender indicates a big disparity standing at 5,352 male doctorate degree programme candidates by 2016 while 1,794 were female candidates (CUE, 2016). This translated to a dismal 1.11% of doctorate degree candidates to undergraduates and only 10.00% of all postgraduate enrolment. The gender statistics also indicates that only 35.50% of the female are enrolled to study at doctorate degree level while the rest were males (CUE, 2016).

The Commission for University Education (CUE) identifies lack of institutional capacity to mount quality doctorate degree programmes as a major hindrance. This is linked to doctorate degree programme duplication by universities, poor management of doctorate programmes, slow processes in admissions, insufficient academic and administrative staff to manage the programmes, weak doctorate candidates' supervision process resulting from supervisors and examiners who are discouraged, underpaid and overburdened with a high ratio of supervisor-supervisee (Mukhwana, et al. 2016). Most

of the Doctorate students are fulltime academic staff (Tutorial Fellows) representing 53% (8,693) of the total university academic staff with heavy workload, possess low research skills, are poorly socialized and integrated into the institutions offering these doctorate programmes. This poses a challenge of inefficiency and inadequate time dedicated to their doctorate studies which may result into long time to earn a doctorate degree (Mboya, 2019). On the other hand, doctorate programmes mounted by most public universities in all disciplines are overpriced in terms of cost. This has locked out many potential doctorate programme candidates from enrolling. Furthermore, due to cost, those already enrolled, take long to complete since they have to get their school fees cleared. Consequently, the estimated doctorate degree programme completion time is nine years (CUE, 2016; Rong'uno, 2017).

The efficiency of doctorate student admission, preparation and supervision remains weak in Kenyan public universities. This has prompted enrolment to remain low while preparing the doctorate candidates which include the period of admission to completion take a long time (Mukhwana et al., 2016). However, universities are responding by establishing postgraduate schools or boards but not much headway has been attained so far. The recommended staff-student ratio remains a mirage. For instance, CUE (2016) recommends a standard ratio of supervisor- supervisee to be at 1:7 for Medical and Applied Science, 1:10 for Applied Science, 1:15 for Arts and Humanities, 1:18 for social sciences and 1:10 for Pure and Natural Sciences but in most universities, supervisors exceed the limit due to inadequate staff (CUE, 2016).

Majority of public universities in Kenya are ill-equipped. This has posed a big challenge since they do not possess adequate resources and infrastructure to mount high level quality doctorate degree programmes (Eshiwani, 2009; Okwakol; 2008; Rong'uno, 2016). Libraries and laboratories are poorly equipped with limited space, they lack modern ICT services, and most universities lack peer refereed journals to boost publications and above all, the academic staff is insufficient to match the large numbers of undergraduates seeking for training at this level. The number of academics working at the universities who possess doctorate degree remains low at 4,215 with 3,189 males and 1,026 females (CUE, 2016). These numbers of staff have challenges supervising doctorate students since they also undertake teaching of undergraduates and masters students. Furthermore, they as well discharge other administrative responsibilities such as being deans, chairpersons of departments among others. According to CUE (2016), only individuals with doctorate degrees will be allowed to lecture at the universities yet graduating of those much-needed doctorates remain all-time low.

Despite upward trends in enrolments into doctorate programmes, completion has continued to be low. The year 2016 saw only 396 doctorates graduate from Kenyan public universities against CUE target of 1000 per year while there were 5,352 who had been enrolled for doctorate programmes. In a cohort of 388 students enrolled for doctorate programmes in faculties of education of Moi University, Kenyatta University and University of Nairobi between 2001 and 2015 only 63 candidates managed to complete their studies within five years of study. Majority (325) spent over ten years with only 252 completing within this period (Ronguno, 2017). This indicates that the

situation of doctorate graduation in Kenya is below expectations when compared to countries like South Africa which produces over 1000 doctorates per year. The case is worse given the CUE recommendation and the Ministry of Education (MoE) that Kenya needs to be producing 1000 doctorates per year by the year 2018 to meet her local demand of academicians, researchers and experienced human resource to boost the economy. The current study thus, endeavoured to establish the institutional practices which have led to persistence of low doctorate degree enrolment and low doctorate degree graduation rates in Kenyan public universities.

1.2 Statement of the Problem

The developed and fast developing nations of the world are graduating doctorates at higher rates than their market absorption. In Kenya, university training has rapidly expanded for the past two decades. This expansion has led to increased demand for individuals with doctorate level qualifications to work as teachers, researchers and to replace the aging professoriate. Moreover, the expansion saw most of middle level public colleges converted into public universities without due regard for the teaching staff with doctorate qualifications as well as infrastructure to support it. This has further been compounded by indicators of low doctorate enrolment and low graduation rates of doctorates from Kenyan public universities. This is despite the increased number of students that universities are supposed to handle with over 400,000 undergraduate students, 40,177 masters programmes students and over 6,000 doctorate degree programme students with no commensurate increase in the number of doctorate holders who are supposed to teach, examine, conduct research and undertake administrative

duties in the universities. This has further been compounded by the low number of individuals with doctorate degrees graduating on a yearly basis from public universities compared to the policies articulated by the Ministry of Education through the State Department of University Education of producing at least 1000 doctorates yearly. This has therefore necessitated the current study to establish the institutional practices contributing to low enrolments into doctorate programmes, poor quality and low completion rates in Kenyan public universities.

1.3 Purpose of the Study

The purpose of this study was to establish and analyze institutional practices influencing trends in enrolment and completion rates in doctorate degree programmes from selected Kenyan public universities. The analysis of these practices would help university administrators, policy makers and other stakeholders to establish policies that can progressively enhance doctorate degree enrolment and completion in Kenyan public universities.

1.4 Objectives of the study

The study sought to;

- i. Analyse the trends in doctorate degree programmes enrolment and completion rates from selected public universities in Kenya from 2003-2017.
- ii. Establish how institutional doctorate degree programmes procedures influence enrolment and completion in selected Kenyan public universities in Kenya.

- iii. Establish how institutional doctorate supervision practices influence completion in doctorate programmes by students from selected public universities in Kenya.
- iv. Explore the extent to which institutional resources influence doctorate degree programme enrolment and completion rates in selected public universities in Kenya.

1.5 Research Questions

The research was conducted and guided by following study questions:

- i. What is the trend in doctorate degree programmes enrolment and completion rates in public universities in Kenya from 2003-2017?
- ii. How does institutional doctorate degree programmes' procedures influence enrolment and completion in public universities in Kenya?
- iii. To what extent do the institutional doctorate degree programme supervision practices influence completion rates in selected public universities in Kenya?
- iv. How does availability of resources influence doctorate degree programme enrolment and completion rates in selected public universities in Kenya?

1.6 Significance of the Study

This study is important in several ways. Firstly, it offers reliable information on institutional practices influencing trends in doctorate degree enrolment and completion rates from selected Kenyan public universities. The data will be beneficial to policy makers, lecturers and doctorate students concerned with enrolment and completion at Doctorate level of study. Secondly, the outcome of this study will assist university

policy makers, administrators and lecturers to improve on institutional policy framework which could be used to enhance doctorate degree enrolment and completion in Kenyan public universities. This would help contribute to the pool of aptly skilled individuals required in the competitive transformative society. Finally, findings from this study would contribute towards the literature on institutional practices influencing trends in doctorate degree enrolment and completion from public universities in Kenya. This may serve as a ground for further research on doctorate education in Kenya.

1.7 Limitations of the Study

The study was not able to cover the opinions of all doctorate programme students and doctorate degree graduates from all public universities due to inability to either trace those who graduated or accessing requisite information regarding them. Additionally, meeting some respondents was a challenge. Due to unforeseen circumstances, some respondents postponed the meeting because of official duties and thus the researcher spent extra time to wait in order to meet them. The respondents not met as agreed even after waiting, the researcher rescheduled the meeting to another time suggested by the respondents.

1.8 Delimitations of the Study

The study limited itself to four Kenyan public universities namely: the University of Nairobi, Kenyatta University, Moi University and Egerton University). These universities were the first to be established in Kenya and have offered doctorate programmes for over fifteen (15) years. Furthermore, they were deemed to possess the

most experienced faculty to mount the doctorate programmes in terms of teaching, supervision and guidance in research process. The sample selected was therefore suitable in presenting institutional practices influencing trends in doctorate degree programmes enrolment and completion from selected Kenyan public universities. Consequently, the research conclusions and generalizations are considered representative of the Kenyan public universities.

1.9 Assumptions of the Study

The research was grounded on the expectations that doctorate degree enrolments and graduation rates from Kenyan public universities were as a result of the laid down university policies and guidelines. This was ensured through the rigorous processes that individuals who enrolled for a doctorate degree programme were subjected to from admission to graduation. The rigorous processes involved proper admission either directly into coursework or writing a concept paper through to defending of a final thesis. Further, that all respondents incorporated in this study provided reliable responses which enabled the researcher to make valid conclusions and recommendations with regard to doctorate degree programmes' enrolment and completion rates in Kenyan public universities. The researcher furthermore, assumed that doctorate degree programme enrolments and completion rates were not uniform in all public universities in Kenya. Therefore the study sought to find out the institutional practices influencing trends in enrolment and completion rates in doctorate degree programmes from selected Kenyan public universities.

1.10 Theoretical Framework and Conceptual Framework

1.10.1 Theoretical Framework

The study was guided by two theories namely; The Social Support Theory by Williams, Barclay and Schmied (2004) and the Involvement Theory by Astin (1984). The study used the two theories since doctorate degree studies could best be explained using the aspect of support a doctorate candidate gets and the extent to which such a student is involved in the studies particularly from the social environment. The Social Support Theory assumptively captures the emotional, the instrumental, the informational and the appraisal pillars extended to an individual in any endeavors in life. On the other hand, the Involvement Theory assumes that success entails physical energy and psychosocial support in a sustained continuity. Furthermore, the involvement aspects may be both quantitative and qualitative in nature. Additionally, what individuals gain is directly proportional to the extent to which they are involved in a process. Thus, in academia, students' performance is correlational with the extent of their involvement in teaching and learning

The Social Support Theory encapsulates the general support socially accorded to individuals; in this context, those enrolled for doctorate degree programmes. Furthermore, this entails the arrangements people have while communing with the larger society which contributes to happiness and bonding. The infrastructure here connected to the physical amenities and resources present in the universities offering doctorate programmes and how integrated the doctorate candidate is in the department or faculty hosting the programme which makes up the family and community

respectively. It is, therefore, noted that isolation from these community pillars (department and faculty) leads to alienation. The Social Support Theory was utilised in the study to clarify the institutional practices influencing trends in doctorate enrolment and completion rates in selected Kenyan public universities. The theory emphasizes that providing support socially can take the practice of emotive care from supervisors together with other faculty members. This comprises the warmth and nurturance doctorate students receive from academic advisors, the tangible support through scholarships, the informational support in coursework and thesis writing skills. Lack of institutional capacity and clear guidelines on how to integrate students into a doctorate programme would alienate them which would make them end up to silently withdraw or take long time to complete their degree course. This study, therefore, tried to determine the influence of social support leading to enrolment and completion rates among doctorate students.

The theory also looks at the concept of the socializer and the socializee. According to Thoits (1995), efficient 'collaborators' are individuals who already have gone through similar challenging situations to those in need of help. This would be pragmatic twofold; first for doctorate degree holders, having successfully studied through the programme and graduated, secondly, the doctorate students who are in the process of studying for the doctorate degree. The doctorate students need the social support through mentorship programmes and participation in departmental activities. The doctorate degree supervisors who are the academic advisors play a key role in the institution to initiate doctorate students into the programme. They can assign them roles,

guide them to participate in conferences and grooming them in presentation skills. This was of concern to the study in finding out the role institutions play and the kind of help they accorded doctorate students. It is worth noting that doctorate students are in much need of social support mechanisms to help them navigate through the doctorate studies which is highly multifaceted. The study looked at the social support aspects that doctorate degree students required in the course of their studies that impact on completion rates.

The second theory is Astin's (1984) Theory of Involvement. This deals with how human beings are involved in doing activities in the society. The concept of involvement here referred to course or path taken in doctorate education or enrolment (Astin, 1993; Pascarella & Terenzini, 2005, Tinto, 1993). The theory operates on the ground that involvement requires an investment of psychosocial and physical energy doctorate student's direct toward their studies. The amount of investment directed by universities in management and governance of doctorate programmes, the processes involved in admitting doctorate degree students, the quality of staff both administrative and academic involved in running the doctorate programmes and regulations on students' status which were indicators of invaluable aspects of involvement.

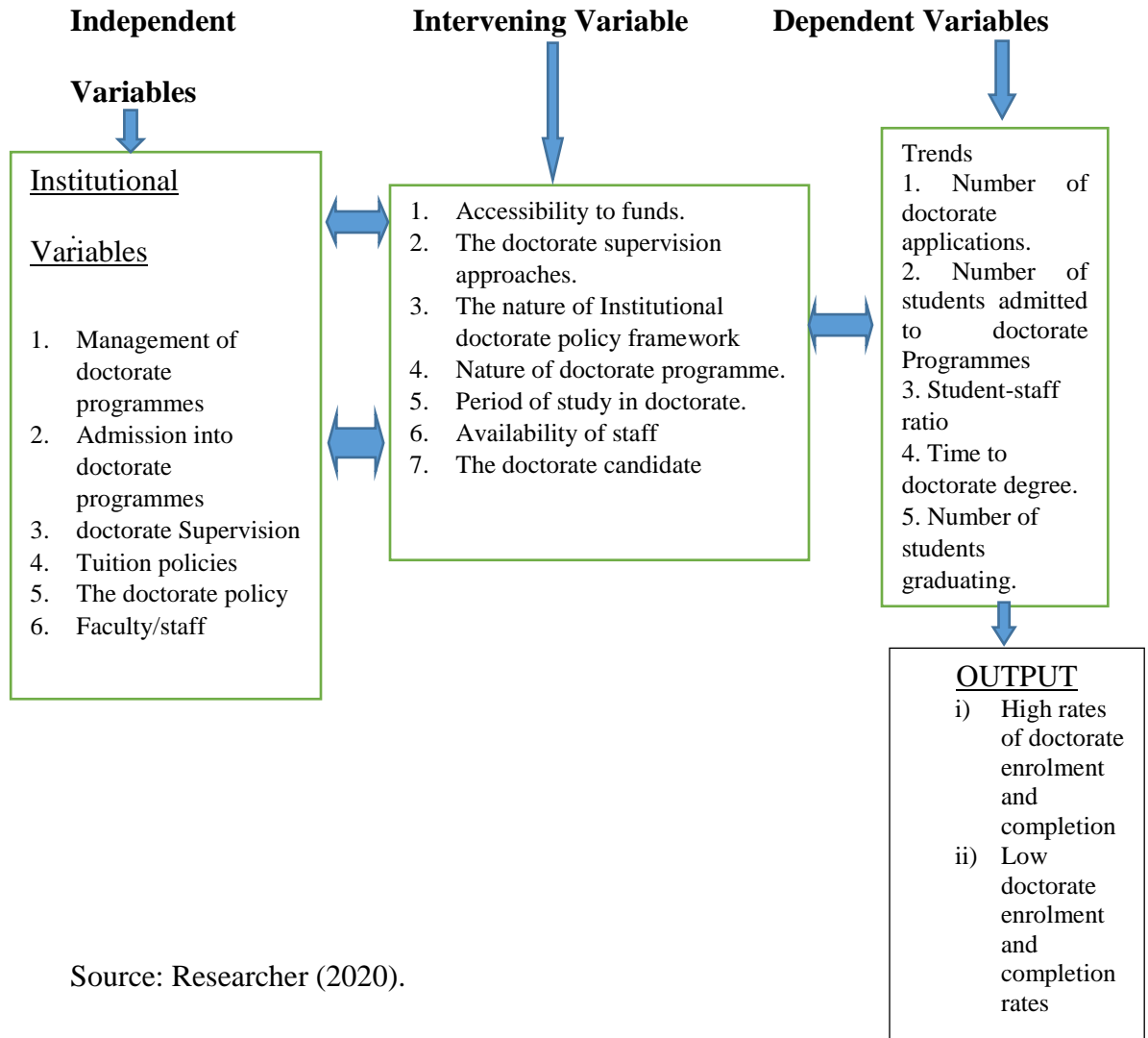
Various scholars have applied this theory in doctorate education. Gardner (2007) underscored the importance of doctorate candidates' involvement in expert's organizations which are appropriate to the areas they have selected to pursue as a way of intellectual participation. Tinto (1993) stressed on the fact that the process of

interacting among the doctorate programme students as vital for their well-being. He further observed that interacting socially with the academic staff and fellow doctorate students is connected to their intellectual development and acquisition of critical skills for to enable successful doctorate degree completion. These would include capabilities in proposal and thesis writing as well as doing projects which could attract funding in order to lessen the financial burden of the doctorate degree programme student. It is against this background that the association, knowledge and skills gained would determine completion rates at the doctorate level.

Tinto's statement is reinforced through Wenger (1996) who opines that the thoughts of learning and learning organization are interconnected at any given time. He further stated that, informal group exchanges are essential in imagination, being analytical, and gaining understanding through working together in varying contexts. Furthermore, Wenger asserts that, due to complex state of knowledge building process, group collaboration constitutes phenomenal resources of learning. This model of participation presents a wide spectrum within which to theorize and analyse doctorate degree programme education. This is achieved through gaining insights of enrolment and completion rates from the universities.

1.10.2 Conceptual Framework

The study was theorized to capture the dependent and independent variables, how they interact in a complex environment to influence the doctorate enrolment and completion in Kenyan public universities. This is presented in figure 1.1.

Figure 1.1: Conceptual Framework

Source: Researcher (2020).

The conceptual framework shows how different institutional variables interact in a complex system of social environment to influence doctorate degree programmes enrolment and completion rates in Kenyan public universities. They include; the doctorate degree admission process, government policies, the faculty who include the supervisors and mentors forming a very crucial component of the doctorate degree programme. All these variables interact individually or collectively to influence

doctorate degree enrolment and completion rates in Kenyan public universities. According to Entwistle (1990), the success or failure of doctorate degree students is influenced by intricate relations among the doctorate programme candidates and their environmental encounter.

1.11 Operational Definition of Terms

Completion rates – in the context of this study this term is used to refer Specific percentage of students’ cohort awarded doctorate degree having successfully met the set university conditions in a specific programme of study in this case three years.

Doctorate degree – this refers to the highest academic degree a university confers upon completion of a study program which takes place in three years.

Enrolment – this terms is used to refer to the Right of admission to participate in a doctorate degree programme at a public university in Kenya either as a fulltime or part-time student for a specific period usually three years.

Trends – refers to the Available statistical data on enrolment and completion rates in doctorate programmes from selected public universities in Kenya.

Doctorate Supervision – refers to the academic guidance offered to a doctorate student in course of thesis writing process.

Faculty Members – refers to the academic member with requisite qualifications to supervise doctorate programme students usually holders of a doctorate degree coupled with vast experience in the programme of study.

Doctorate thesis – refers to the original work authored by a doctorate programme student after undertaking a research in area which has not been done before.

Academic Plagiarism – refers to the act of utilizing an individual’s academic work without acknowledgment or source crediting.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 Introduction

This chapter focuses on literature relevant to the current study. It describes the institutional practices influencing trends in enrolment and completion rates in doctorate degree programmes from selected Kenyan public universities. A major focus on the doctorate programmes trends in terms of enrolment and completion, doctorate supervision models, funding, student mentorship and advising, research skills possessed by the student, doctorate student's responsibilities and motivation are discussed in light of how they influence doctorate programme enrolment and completion rates globally, in Africa and Kenya. Conclusions were then drawn based on the discussions. This helped in identifying the gaps in the study.

2.2 Trends in Doctorate enrolment and Completion Rates

Enrolment into doctorate programmes indicates different scenarios globally. Doctorate degree graduations and attrition is a serious challenges disturbing universities world over (Devine & Hunter, 2016). Attrition rates are indeed different across universities, countries and continents. For instance, in America, doctorate degree programme attrition rates are really high. It is projected that 40.00% to 50.00% of those enrolled for doctorate degree programmes never complete their studies (Litalien, 2015). According to a report published in 2016 in United Kingdom, 72.90% of those enrolled for doctorate degree programmes in 2010-2011 took an average period of seven years to graduate (Alison, 2017). On the other hand, a study carried out in Australia by Abiddin

and Ismail (2011) established that about 60.00% of doctorate programme candidates who enrolled during 1992 were awarded their doctorate degree in 2003. Consequently, majority of doctorate candidates could have earned their degrees after eleven years of study from the time they initially entered into the programme. The attrition rates thus stood at around 40%. This indicates a long period to doctorate graduation in Australia. In Canada, the scenario is different as it is estimated that the attrition rates stand at 20% of those who enroll for doctorate programmes (Galt, 2013).

A survey study by Council of Graduate Schools (2015) on the North American region (Canada and USA) established that doctorate programmes enrolment had tremendously increased in the last three decades to 506,927 by 2015. The increment was attributed to the countries' open policy for doctorate programmes. The study however fails to single out institutional practices which stimulated such increment in student enrolment. Begalla (2013) undertook a descriptive survey study on doctorate education in the USA. The findings were that USA is attracting many doctorate students from across the globe. This had been motivated by perceived quality education in the USA, availability of relevant training and applied knowledge as well as availability of partnerships in doctorate education. These studies do not bring out institutional practices that led to the increase in doctorate enrolment across the USA universities which is pertinent to the current study.

Hanover Research (2014) in a study concurs by emphasizing that USA has established feedback mechanisms which efficiently analyse the efficacy of universities to mount

competitive doctorate programmes as well as ensuring sufficient resources are in place. They manage this through understanding the situation of doctorate students' economic power, enrolment trends, their needs, perceptions and interests. This has helped them to focus on recruitment and retention strategies.

Studies on Canadian universities on the other hand indicate that they have grown enrolments into doctorate programmes significantly. For instance, in 1993/1994 academic year, 26,475 individuals were enrolled in doctorate programmes at Canadian universities. This had 16,500, males accounting for 62.00% while 9,972 were females 38.00%. The trend changed to a total of 42,801 doctorate enrolment and over 66,000 doctorate candidates by end of 2016 (Statistics Canada, 2017). The increase in enrolment was attributed to foreign students seeking doctorate education in Canada and the doctorate expansion policy where the tuition fees was waived (Golde and Walker, 2006, CGS, 2008, Ehrenberg et al. 2010, Cloete et al. 2017). This study underscores expansion policies put in place by the universities

The number of doctorate degree holders in Africa is small when compared to their demand in terms of teaching at the university and research. Namuddu (2014, p. 26), "Africa must look at ways to train thousands more doctorate students on the continent". This was made in reference to an assertion by Dr Nkosazana Dlamini-Zuma, the AU Chair. The chairperson had underscored the need for more doctorate degree holders in African to meet the demands of the knowledge economy. Doctorate programme training in Sub-Saharan Africa is confronted with multiple challenges. These challenges

range from scarcity of those who can train doctorates, to inadequate doctorate programmes supervisors, insufficient funding, and serious brain drain.

Mouton (2011) asserts that the serious challenge confronting Africa as a continent is the small number of those who graduate with doctorate degrees. He further observed that Africa is inherently faced with scarcity of human resource endowed with the ability to train researchers. This has hindered the training of appropriate numbers who could be future scholars, researchers and academicians. The end-result is insufficient numbers of accomplished scholars in universities to train doctorate programme students while incorporating them in the intellectual realm of research. Grossman and Crowther (2015) concur while emphasizing that lack of sufficient thesis supervision capacity will definitely slow down doctorate completion rates. They also noted that most doctorate students take long to graduate due to supervision related challenges. The few qualified thesis supervisors are either busy with university administrative duties and therefore have little or no time for doctorate students. This is further complicated with country to country policies which infringe on the autonomy of universities. This hinders institutional changes inclined towards improvements of the doctorate education (Imma & Calvet, 2012). Lack of autonomy by the universities also affects internal institutional aspects related to training, thesis supervision and research. Imma and Calvet (2012) further observe that university autonomy is an on-going process and has not yet been fully realised. They underscore the need for university education reforms aimed at providing autonomy. These assertion are obviously critical of the doctorate programme situation which the current study endeavoured to ascertain.

Most African countries are still developing nations of the world. Their economies are not stable and therefore, funding doctorate education remains a big challenge for them. Mouton (2011) asserts that countries in the Sub-Saharan Africa region are economically challenged which constrains the budget allocated towards doctorate education. Caillaud, et al., (2009) in a study established that inadequate financing of university education by governments is a serious challenge confronting doctorate programme studies in Sub-Saharan Africa. The two studies have dwelt on insufficient funding without singling out how as a practice it influences the enrolment and completion rates at the doctorate level at the universities level which is a concern for the current study.

Cloete et al., (2015) through a study found out that South Africa had introduced a deliberate policy framework to enhance the number of doctorate graduates. This enhanced the number of doctorate graduates would bridge the country's demand of university education of teaching and research. These efforts have yielded fruits as South Africa is now ahead of all other African countries in graduating people with doctorate degrees yearly. The country has made massive investment targeting doctorate studies so as to improve their completion rates. The areas of improvements are offering financial assistance to doctorate students while increasing and retaining the number of qualified individuals with the ability to supervise the doctorates (Waghid, 2015). Cloete et al., (2015) in a descriptive study of the South African universities established that doctorate programme enrolment had improved due to the establishment of the National Development Programme (NDP) 2030 which aims at producing 5,000 doctorates per year. This policy saw the increase in doctorate enrolment from 5,152 in 1996 to 13,964

in 2012 and over 23,000 in 2016. This represented 6.40% increment per year of the number enrolling for various doctorate programmes. This growth was fueled by the improved doctorate supervisory capacity through incentives, massive government investment into doctorate education and the country positioning herself as a less expensive education destination in terms of cost compared to countries like UK and USA. However, South Africa is faced with challenges such as xenophobic killings, which has negatively affected her dream. This study has not clearly established the institutional practices by universities in South Africa that fueled such growth. The current study will establish the institutional practices influencing trends in enrolment and completion rates in doctorate degree programmes

The growth of both those enrolling and graduating notwithstanding, South Africa is equally faced with a myriad of challenges. Funding of doctorate studies constitutes the greatest impediment of graduating even more doctorates in the country (Marshall et al., 2017; Mouton, 2016). The financial difficulties are widespread amongst black doctorate candidates in South (Mouton, 2016). Furthermore, small numbers of those enrolling for doctorate studies when compared to undergraduates and masters continue to remain as a challenge (Marshall et al., 2017). Again, among individuals who manage to enrol for various doctorate programmes, the challenge of being sustained until completion has been cited (Mouton, 2016).

Globally, university teaching and learning is undergoing transformations technically and administratively. In Kenya, the regulation governing university education requires

that one has to attain certain level of qualifications to be a lecturer. The basic requirements set by the government is that one has to be holder of a doctorate degree (CUE, 2016). This has exerted pressure on universities to supply enough technical labour force for the market. The universities on the other hand are trying to race against time to meet the market demands through graduating more doctorates. However, it has been found that areas which influence completion of doctorate programmes from the universities include thesis supervision, insufficient financing, personal characteristics, and the institutional perceptions as held by the potential doctorate programme students (CUE, 2017; Kemunto, 2018).

According to a study by Kalsbeek and Zucker (2013) efficacy of a programme is measured through successful retention and completion rate of student is institution specific. They found out that the institutional system, the culture and mechanism put in place are still critical towards influencing the success of doctorate programme students. A research done by Osei et al. (2017), on "Trend Analysis of Students Administration, Enrollment and Completion Rate in KNUST" revealed that student enrollment generally showed a fluctuating trend and also indicated a number of student-related factors affecting students completion. Strikingly, women having children were found to have increasingly interfered with examples of school participation. In the first place, Turner (2014) found out that having kids in late teenage hood and mid-twenties could contrarily affect school participation for women. In particular, youthful mothers were bound to have "intruded on spells of school cooperation" and lower odds of degree achievement.

Enrollment of students' in pursuit of doctorate level of training has been on the rise over the past decade. Despite this scenario, those who successfully graduate with doctorate degrees from Kenyan public universities has remained low when compared with other universities in the developed world. Furthermore, universities in Kenyan have continuously ranked lowly on the regional and global front (Omanga, 2017; CUE, 2016). The problem calls for urgent and appropriate concerted efforts for doctorate programme candidates to realise successful research process. Amutabi (2011) in a study voiced concerns regarding low doctorate graduation rates and the lengthened period taken by individuals to complete doctorate studies in Kenya. The study does not discuss the institutional challenges exacerbating this phenomenon. The situation is even worse given the directive by the government of Kenya through CUE that only individuals with doctorate degrees will be allowed to lecture in the universities. The scholars are worried if the number of doctorate degree holders is sufficient to meet this directive.

In Kenya, enrolment into doctorate programmes remains a thorny issue among public universities. According to CUE (2014), there were 4,394 students enrolled for doctorate programmes out of which 1,562 were females representing 35.50%. The remaining proportion of 2,832 was males representing 64.50%. The situation slightly improved in 2015 with total doctorate enrolment increasing to 7,146. Out of this, public universities enrolled 6,069 comprising 1,794 females. This trend is worrying owing to the massification in university education, which requires the doctorate holders to be teachers and supervisors. CUE (2016) further observes that this enrolments is a meagre 1.10% of the undergraduate students' enrolment which remains at over 448,920 and

40,173 masters representing 10.10%. This low enrolment is a concern to this study with the intention of establishing the institutional constraints which influence these trends. Omanga (2017) agrees through observing that doctorate enrolment in Kenyan public universities remain all-time low.

Timely doctorate programme completion remains a demonstration of working hard by both supervisors, doctorate candidates, departmental and university environment put in place (Luwel and Moel 2007). Furthermore, doctorate degree graduations and the period taken to completion are important parameters for checking trends in stock and flow of doctorate graduates per programme in respective universities. It also indicates a country's ability to produce and maintain a pool of highly skilled human resource (Wright & Cochrane, 2000). Global trends in doctorate completion indicate different scenarios between developed, fast developing and developing nations. Council of Graduate Schools (2013) observes that doctorate production in the United States is on the increase with more universities accredited to offer doctorate programmes. Presently, more than 400 universities in the USA award doctorate degrees. Furthermore, US universities have awarded over 1.35 million doctorates between 1920 and 1999. The majority of these, 62.00% were in life sciences. In 2009, the USA universities graduated 19, 733 doctorates in sciences and engineering alone. In 2011, USA graduated 49,010 doctorates in total with over 75.00% being in engineering and science areas. This indicates upward trends in doctorate graduation from the US universities. These trends do not bring out the efforts put in place by individual institutions while realizing the achievements.

According to the Group of Eight (2013), in a survey study, the number of doctorate graduates is on the upward trend in Australia in the recent past. In 2011, there were 6,780 doctorate degree students graduated in Australia and a further 11,314 students enrolled for their doctorate studies. This is due to the government interventions of availing more resources towards doctorate education. MacGregor (2013b) contends that Brazil has experienced remarkable achievements in doctorate education through tremendous increment in graduation to 12 000 doctorates per year up from 800 per year in the last three decades. This has been attributed to enhanced government funding and strict peer evaluation models. This discussion has not brought out what individual universities were able to do in order to spring this growth which is a concern for the current study.

In a recent overview of doctorates production, Mouton and Cloete (2011) observes that China increased the number of doctorate graduates by 817.00% while Taiwan and UK increased by 379% and 82.00% respectively in a period of ten years (1991 to 2004). Comparatively, during the same period, USA and Germany grew their doctorate graduations by 12.00% and 3.00% respectively. In Germany, Drope University is ranked the best in graduating doctorate degrees, churning out some 7,000 science doctorates in 2005. In OECD, the number of doctorates in sciences grew by nearly 40 per cent between 1998 and 2008 to 34000 (Cloete & Mouton, 2015; Cyranoski et al. 2011: 277). Mouton and Cloete have not zeroed down to practices which have influenced this kind of trend at the individual universities across UK, China, German and Taiwan which is of concern to this study.

African universities have continued to enroll and graduate a small number of doctorates for the last fifteen years. This has been compounded by a small number of faculty members and administrators who can work as doctorate programme managers. Earl-Novell (2006) in a descriptive study established that there was employment freeze by most African countries. This made the case of universities complex by creating severe academic gaps among departments and schools hosting doctorate programmes. Massive expansion in university education at bachelors and masters levels has further complicated the situation meaning the available resources, doctorate holders being one of them have been badly overstretched.

A study carried out by HERANA (2013) in nine African universities indicates mixed results in response to doctorate production. Out of the nine universities, five of them had graduated twenty or less doctorates in 2007 whereas three graduated between twenty and forty doctorates. In all the nine studied universities, only one (the University of Cape Town) graduated over 100 doctorates. The study found out that these universities had not put a lot of effort in instilling a culture of doctorate success in their programmes. The study further found out that African countries graduated less doctorates as a percentage of total populace than developed nations. For instance, South African universities churned twenty six doctorates in every one million of her populace in 2013 when compared with Portuguese universities which graduated a total of 569 doctorates in every one million of her populace. Korea on the other hand graduated 187 doctorates in every one million of her populace while Turkey produced 48 doctorates in every one million of her populace per year during the same period. The study has only

highlighted the road to doctorate completion without bringing out the practices that influence enrolment and completion in the studied environment which is critical to the current study

The challenge of low doctorate programme completion rates is evident in Kenya like most of African countries (Ayiro & Sang, 2011). The country has doctorate graduates numbering less than eight thousand holders which is way below the demand standing at over 30,000 doctorates who are essential in training and conducting research. Kenyan universities graduate on average, 200 doctorates per annum, while CUE has projected a target to graduate over 1000 doctorates yearly by 2030. Furthermore, the commission had projected that all university academic staff to have be doctorate qualifications by 2018 (Nganga, 2014). Strides have been made although not much has been achieved.

On the other hand, the trend in doctorate completion in Kenyan public universities has been growing minimally. The mainstream universities have been producing less than 100 doctorates per graduation. For instance, Kenyatta University graduated only 44 doctorates in all doctorate programmes in the year 2014. JKUAT is the only one which has managed to produce slightly over 100 doctorates per academic year reaching 104 in 2014/2015 academic year. University of Nairobi, Kenyatta University and Maseno all have produced between 40 and 80 per academic year.

According to Ayiro and Sang (2011), Kenya lacks an inbuilt research culture where intrinsically, doctorate candidates will carry out research. The number of scholars

involved in serious academic research activities is wanting. Further, this has been complicated by the challenge of low doctorate completion or even taking a longer period to complete doctorate programme studies (Gudo et al., 2011). The number of those dropping out is high sometimes stretching above 50.00% whereas those who opt to remain in the programme spend long time beyond the policy stipulated period of three years for doctorate studies (Ayiro & Sang, 2011). This study intended to establish whether there are institutional factors or variables within or beyond the universities responsible for influencing this production.

These statistical trends on doctorate programme completion from Kenyan public universities presents a gleam picture despite the effort in terms of investment that both the government and private educational actors have put in place. Rong'uno (2016) in a descriptive survey study targeting doctorate completion in education programmes, sampled three Kenyan public universities (University of Nairobi, Kenyatta University and Moi University schools of education). The study targeted 579 respondents in schools of education for a period of five years (2009-2013). The study concluded that two out these sampled universities had graduated low number of doctorates in education programmes. The current study sampled four universities (University of Nairobi, Kenyatta University, Moi University and Egerton University). Diversity of doctorate programmes and social environment were explored. The focus was on education, social sciences, humanities and pure and applied sciences. The urban and rural set up for universities was also key. Furthermore, these programmes must have been on offer in the selected universities for fifteen years and above while graduating doctorates.

2.3 Institutional Doctorate Programme Procedures, Enrolment and Completion Rates

The doctorate award is apparently the epitome of academic achievement realised in the university education. Furthermore, the doctorate degree is a crucial ingredient for socioeconomic and political growth of any nation. Countries transiting to the 21st century knowledge based economies primarily require a labour-force with comparable quality of understanding, expertise and aptitudes that can enrich revolution in all domains of human life (Michubu, Nyerere & Kyalo, 2019). The availability of the sufficient number of doctorates will bridge the rising demand in the universities as teachers and researchers as well as spur the much needed domestic development. This will also build an inventive pool of labour-force with sufficient aptitudes to stimulate technical and scientific development (Olubusoye & Olusoji, 2014). The greatest feature motivating growth in doctorate degree training is the pressure from the government to advance the skills of those teaching at the university. This has largely resulted from the growth experienced at university education. It is vital to take note of the fact that any substantive development in a country springs from research output which drives innovation (Oluwatobi, Mariam & Ali, 2019). Consequently, enhanced training of doctorate programme candidates is imperative in all fields. Countries have thus been compelled to set targets for academic members of staff and universities on doctorate programmes' enrolment and graduations per year. This has mostly been anchored on the university policies and strategic plans.

For Individual candidates desiring to enrol for doctorate studies, selection of the university is critical. Wimshurst, et al. (2006) established that the university factor (such as, the reputable institutions) is an essential factor towards doctorate candidate's academic performance. This is supported by an investigation conducted at University of Botswana which found out how potential doctorate candidates were convinced to enroll in certain universities. The attracting items according to the study were; cost of the programme, the general university reputation, the type and level of financial support availed, the uniqueness of the programmes offered, the physical facilities, scholarships, research grants available and availability of qualified academic staff. MacKeracher et al. (2006), concur while emphasizing that those institutional obstacles may comprise lack of established financial support, lack of essential materials for academic discourse and failure to understand the entry behaviour of the potential doctorate candidate.

The universities' doctorate programme procedures influencing enrolment and completion include selection process, type and structure of doctorate programmes, doctorate student's mentorship structures, learning setup and doctorate programme process (CGS, 2009). Darwin and Palmer (2009), in a study established that doctorate programme modes of selection, mentor-mentee relationship including students working in small groups not only enhance bonding but also improve students' successful social and academic integration into doctorate programmes. The overall effect is likely to be high doctorate enrolment and completion. They have not however established how these processes can take place at individual universities. Grover (2007) in a survey study agrees and emphasizes that the extent to which doctorate students are guided in

programme selection, coursework, oral tests, written tests and skills on writing an academic thesis influence enrolment and completion. The two studies have not brought out how such practices are intertwined at institutions offering doctorate programmes which were critical to the current study.

The programme type and structure shape doctorate student familiarity and amalgamation into the specific university and study programme (Spaulding and Amanda, 2012). Terrel et al., (2009) concurs through stating that students in distant programmes often experience feelings of seclusion resulting from insufficient of socialization as well as interacting with the fellow doctorate programme candidates and members of the academic staff. The two have delved into programme matters without establishing how individuals are recruited into the programmes.

It is evident that schools and departments hosting doctorate programmes play critical role in students' social integration, doctorate programme quality and effectiveness of the throughput. (Pascarella, 2005). The CGS (2010) underscores on the critical institutional practices which influences doctorate enrolment and completion. Improvement of student selection processes, programme administrative procedures, and financial accessibility, mentoring and advising and providing academic research experiences will enhance the doctorate students' abilities not only to navigate through the programme but also complete their studies early.

The challenges of unreasonable cost and extended long periods taken to earn a doctorate degree are multifaceted. Research has demonstrated that the period taken to earn a doctorate is lengthiest in humanities and social sciences (Nerad, 2000). This may result from inappropriate social-psychological support towards the students (Pascarella & Terenzini, 2005). They further observe that institutions which provide sufficient support to the students' experience high enrolment and completion rates at doctorate study levels. Strayhorn (2005) agrees by emphasizing that those universities' administrative experience such as management of doctorate programmes, application and admission procedures, availability of qualified academic staff, tuition policies and regulation on student status; schools' guidelines on thesis writing, personal conflicts and politics can enhance or hamper doctorate enrolment and completion. It is imperative for universities, therefore to develop doctorate programme curricula that would emphasise on making doctorate candidates ready to successfully write their thesis from the beginning of the programme. This is because thesis writing process has proved a tall order for majority of doctorate students impeding enrolment and completion (Pascarella & Terenzini, 2005). The current study established that doctorate student recruitment processes, programme matters and mode of study highly influenced the enrolment and consequent completion.

Different countries have different institutional doctorate programme policies. For example, the three postgraduate studies in most Nigerian universities are postgraduate diploma, masters and doctorate degree programmes. Similar to this, Uduak (2016) noted that doctorate degree which is the highest attainment in education after bachelor's

degree is earned after award of the bachelor's degree and a master's degree. Uduak further asserts that there are variations in duration of postgraduate programmes in different universities and countries. For instance, postgraduate students of most Nigerian universities are required to complete their course of study in one year and six months for masters' programmes and three years for doctorate programmes. The delivery of graduate studies proceeds through the methods of thesis alone or coursework and thesis (Uduak, 2016). Postgraduate students in Nigerian universities are required to complete course and research works within the stipulated duration of the programmes. The course works include seminar and written examinations, while the research work is called thesis or dissertation. The project (for Post Graduate Diploma), thesis (for Master's Degree) or dissertation (for Doctorate degree) investigates educational changes or developments that are being planned to define the way of improving situations innovation (Olibie, Agu & Uzoechina, 2015). In thesis or dissertation writing, students identify and research on a problem worth of investigation. The identified research problem is required to be commensurate with the students' competence, available time data and financial resources. Doctorate candidates are expected to complete and submit theses or dissertations as part of partial fulfillment of the academic requirements for the award of degree. According to Akparep, Jengre and Amoah (2017), thesis is exclusively an educational undertaking that is supposed to be the original knowledge of an investigation by the doctorate students and serve as a core component of the requirements for the award of doctorate degree in one's area of study.

Administratively, doctorate candidates, under the guidance of their thesis supervisors are supposed to identify an area to research on, do a concept paper, and then write chapters one to three. These chapters are then offered to the experts in the research area to read, make suggestions and endorse that the doctorate student should proceed to chapter four and five (Ugwu, Ifeanyieze & Agbo, 2015). Ugwu et al (2015) added that there are five chapters (some time up to seven chapters depending on the discipline) of a thesis. The doctorate student will therefore need to learn the basis of thesis writing. The thesis writing process enables doctorate students to develop scientific skills in solving a problem. Santi, Nanik, Qonita, Marida, Savitri and Wijayanti (2020) stressed that the process of thesis writing offers a doctorate candidate with the chance to study autonomously, relate their prior understanding to research, and generate knowledge based on problem-solving skills. The overall significance of the thesis or the dissertation writing process therefore is to test the academic level of the doctorate candidate. The process brings out not only the academic level of the student but also the ability to handle, manipulate and elaborate new academic ideas. The final aspect is on how to present such ideas correctly and academically (Anderson & MacLaughlin cited in Divsar, 2018). However, most of the students are unable to graduate on stipulated time as a result of delay in completion of their thesis. What accounts for this delay has continued to remain a source of concern for the researchers? There is no single variable solely responsible for doctorate programme students' delay in their thesis or dissertation completion rate. Institutional procedures related to student recruitment, supervisors identification and allocation, school and departmental social integration, mentor-mentee relationship have been cited. However, most of these studies reviewed have not

explicitly teased out practices upheld by universities regarding the aforementioned aspects has not been tackled in any study.

A number of doctorate students who fail to graduate on stipulated time due to delay in their research work abandon the programme. Rooij et al., (2019) observed that attrition percentages, deferment, and disappointment amongst doctorate candidates are obvious difficulties in universities offering doctorate programmes. A procedural delay in thesis or dissertation completion is undesirable for doctorate programme students and also detrimental to universities (Schoot, Yerkes, Mouw & Sonneveld, 2013). It could result to attrition which constitute educational wastages in terms of time, energy and financial resources expended by the doctorate students during the programmes. Schoot et al. (2013) contend that it is a serious loss of valuable time and resources because of all the training and supervision invested in the candidates. Akparep et al (2017) while agreeing maintained that this is a cause of worry for both doctorate programme students, doctorate supervisors, the university and prospective doctorate applicants. This is because it stems apathy on the part of the prospective candidate prompting lack of willingness to apply to study for a doctorate programme at universities. The reason being fear of abandoning the programme mid-way or not completing on record time. Cloete and Charles, (2015) in a study found out that Africa is in a dire need of high numbers of doctorate graduates to sustain the economic expansion being experienced. This calls for enhanced infrastructural investment in both skilled labour-force, materials and enabling environment to realise the desired number of doctorate graduates. Particular attention is to be accorded to technological and scientific disciplines to spur

modern innovation. Doctorate funding practices in most African universities has not been the best. This state of affairs provoked this study to establish institutional practices which influence trends in enrolment and completion rates in doctorate degree programmes from selected Kenyan universities of which the policies are not very much different from African countries.

Quality in university education is an area of concern which needs to be addressed. While responding to this, the government of Kenya set up, the Commission for University Education (CUE) to address quality issues at the university. Through regular inspection using standards and guidelines, the commission ensures that universities have adequate and quality facilities to mount credible doctorate programmes besides bachelors and masters. The commission ensures that universities academic programmes are accredited and thus conform to the set standards while addressing the socioeconomic and political needs of the country. This made the commission to set guidelines to ensure that all academic staff teaching at the universities to have doctorate level qualification by 2018. This was not largely achieved since universities were not able to graduate doctorates at the rate the commission had set. However, the Kenyan universities doctorate recruitment targets remain largely a mirage. There are low numbers of students joining doctorate programmes while those interested are discouraged by long admission processes. This study was timely in trying to establish the institutional policies and practices that have over time influenced the trends in not only enrolment but also completion rates as well.

2.4 Doctorate Programme Supervision Process and Completion Rates

Van der Laan et al. (2021) in a survey study found out that the inadequacies in postgraduate student supervision are associated with student attrition. Furthermore, they established that failure to complete a doctorate programme somewhat related to inadequate supervisory and lack of institutional support; and university capacity to adequately support students is limited, especially within the context of increasing demand for certain doctorate programmes. Doctorate supervision when contextualized captures the process where the academic supervisor oversees a research project. In this context, it entails guiding the doctorate student into meaningful academic reading, the logical and critical thinking. The supervisor also guides the doctorate student on how to generate knowledge, as well as managing the entire process of writing the thesis (Firoz, Quamrul & Mohammad, 2013). The excellence of the supervisory rapport is important to the realization of doctorate candidates in finalising their study programme within the estimated or stipulated timelines (Galt, 2013).

Effective doctorate programme supervision is an intricate process. Ives and Rowley (2005) in a study concurs while stating that supervision and topic selection will determine the length of time a doctorate student will take to attain the doctorate degree registered for. However, the number of individuals with the capacity to supervise doctorate students is also a challenge. According to Harle (2009; 2011) doctorate supervisory capacity is the ability to have sufficient number of experienced staff and their preparedness to offer effective support to the candidates. However, this is one of the greatest barriers facing doctorate education since there are limited number of

supervisors available who possess requisite skills to supervise. Harle (2009; 2011), observes that unlike additional teaching or external consultancy work, doctorate supervision rarely attracts rewards, monetarily or otherwise. These references have not captured the primary role of the supervisor with regard to area of study.

Rugut (2017) observes that doctorate process is multifaceted and thus a continuous process. He stresses that learning at doctorate level consists of oral and written examinations as well as academic seminars which a doctorate student undertakes. Therefore, a doctorate student must continue with learning beyond the aforementioned in order to achieve excellence in doctorate research. The doctorate research process begins with conceiving an idea translated in a concept paper format. The researcher then presents a proposal capturing the ideas, concepts and theories to be utilised in the study. These steps require that the doctorate candidate receive sustained training on methods of conducting research because they are new to this level of knowledge acquisition. The closely sustained training in form of supervision leads to enhanced participation in the research for both the supervisor and the supervisee. Furthermore, the rapport between the doctorate student and the supervisor (s) is enhanced as the research progresses. Consequently, the individual who chooses to undertake a particular investigation must exhaustively study every bit of it to bring out the best. The researcher must demonstrate thorough understanding of the language used to relay the concepts and ideas in that study. This will ultimately call for exhaustive guidance from the established experts in the field of study. The expertise will thus emanate from a supervisor or the mentor who

has extensive information in the field of study which he is guiding the supervisee (Ssentamu-Namubiru & Sajjabi-Bakibinga, 2020).

Conspicuously standing out in the process of thesis supervision is the association between the supervisor and the doctorate student. Delany (2013) singles out features of an excellent supervisor as an individual who is sociable, able to provide guidance, encouraging, open-minded, one who readily realizes, owns mistakes and corrects them. Further, the supervisor ought to be thoroughly organised and be able to inspire enthusiasm in research. Consequently, outstanding doctorate candidate's supervision practices and good rapport with the supervisor forms the critical ingredients in successful doctorate training (Dimitrova, 2016). This determines the timelines towards doctorate programme completion. Ezebilo (2012) supports these assertions in a study conducted in Sweden on challenges in Postgraduate Studies. The study revealed that the successful doctorate research is primarily based on the relationship between the supervisors themselves and between the supervisors and the doctorate candidate. The study concluded that poor student's supervision has serious ramifications on both the quality of doctorate work and the supervisees' motivation and practical advancement. Doctorate supervision demands that candidates are accorded chances that completely involve them in the study process. This will help bolster the candidate's ability to incorporate other research practices to advance their course of study which will lead to doctorate completion even as they use appropriate research methods to complete their projects. Pakdaman et al. (2015) emphasise on doctorate supervision to be a form of mentorship. This is a critical component for doctorate programme candidates since the

supervisor assures a doctorate candidate of a shoulder to lean on while navigating through turbulent academic environment to achieve research competence and in increasing knowledge and skills levels. The supervisor does this through accelerating the cognitive capacities of the doctorate students towards achieving completion of doctorate projects. This will eventually provide the doctorate student with expert knowledge on how to disseminate the findings from the study. Dericks, et al. (2019) supports this by stating that the benefits of an excellent supervisor include mentor relationship which is often measured through the happiness level of the researcher. This contentment is gauged through the abilities displayed by the doctorate student and the abstract sentiments expressed in their discourse. This study examined the importance of cordial relationship between the supervisor and supervisee in the doctorate programme studies.

Taylor et al. (2017) explain that excellent doctorate thesis guidance is essential to minimise the level of doctorate candidates dropping out of the programme which reflects the severe challenge amongst candidates pursuing doctorate programmes. Through the engagement of the academic guides in studies, the proficiency of doctorate programme candidates is greatly improved. This will make them achieve excellence as well as attain effectiveness in studies and gain proficiency in the study area. Dericks et al. (2019) concurs through stating that doctorate supervision mentorship is critical. It encourages doctorate candidates' association with specialized bodies for enhanced visibility. Furthermore, this gives them a chance to interact with experts in their field of study which challenges them to publish their research findings as a way of contributing

to intellectual discourses. This is supported further by Taylor et al. (2017) who view supervision as a form of counselling aimed at helping doctorate programme candidates display an excellent form of participation, commitments and enthusiasm in research. Furthermore, effective supervision can help doctorate students to undertake challenging exercises while ensuring accessibility to expert's intellectual mentorship. This study utilised purposive sampling of the faculty members and employed interrogation model in establishing the extent of mentorship they initiated for doctorate students.

A study conducted by Mehr et al. (2015) found out that doctorate candidates are demoralized when faced with difficulties in the course of their study and they have no one to confide with. Good supervisory relationship helps in rediscovering new inspiring sources while creating a self-controlling structure. The doctorate supervisor will assist doctorate programme students set their goals and plan on how to achieve them together. The supervisor will further help in analyzing the doctorate candidate's responsibilities while evaluating progression of their research towards thesis completion. Universities need to put in place deliberate progress measuring tools which will sustain doctorate programme candidates on toes towards accomplishing research. In this context, doctorate supervision is more of mentorship than teaching. These programmes should enable doctorate programme students create arrangements which will grow their intellectual aptitudes, data finding abilities and data organisation skills. Consequently, academic supervisor remains central in all this coupled with the nature of mentorship programmes they establish for their doctorate students. The result of all this is doctorate programme students acquiring pedagogical skills which will enable them to teach at

undergraduate level and graduate courses. This study interviewed doctorate students and their perceived mentors to examine ways through which mentors helped their mentees to navigate through difficult situations.

The support supervisors extend to doctorate students has been established as being the critical ingredient to drive in research to successful end (Devos et al., 2017). In case of any discouraging attitude displayed by the supervisors through comments they give orally or in writing, mental stress is likely to spring up. The doctorate candidate will at this point think of dropping out of the programme (Grady et al., 2015). Moreover, they affirm that doctorate students experience personal challenges which stifle their intellectual growth hampering doctorate studies. Teklesellassie, 2019) further opine that doctorate supervisors' opinions and suggestions will influence the outcome of the doctorate research. However, they need to remain impartial and help the student in making decisions that will ensure realization of desired outcomes. Doctorate programme candidates need to not only maintain but also keep a sustained reflection of the supervisor's comments. Doctorate students should also respond to issues raised and within the timelines provided. Teklesellassie (2019), however observe that heavy workloads coupled with personal engagements affects supervisor's punctuality in responding to students' work thus disadvantaging them. In most cases, the comments given by supervisors may be demanding or difficult to follow. At this point, the doctorate student needs to arrange for a meeting where explanations pertaining to the comments can be explained (Ward & Brennan, 2018). The research posed interrogative statements to establish the forms of response received from supervisors and the length

of time taken. Furthermore, the inquisition would establish nature of comments given, perception of the recipient and their ramifications.

Ives and Rowley (2005) in a survey study established that a positive supervisory relationship is connected with students' progress and satisfaction with their doctorate programme studies. This helps to encourage doctorate candidates to have a continuous and total involvement in their studies. Ray (2007) agrees and argues that successful doctorate students usually have supervisors who provide leadership and autonomy desirable to grow as academics. Woolderink et al. (2015) underscore the need for departments and schools to ensure that supervisors and doctorate students operate from a matching relationship. This forms a solid foundation to a fruitful outcome in the doctorate journey. This match of supervisor and student operates on the principle of socializer-socializee relationship. This study however did not isolate the key tenets which firm up this matching relationship. Consequently, supervisory rapport is a ground for facilitating disciplinary expectations and norms within a scholarly community through socialization between the doctorate student and the supervisor (Dysthe, 2006).

Masek (2017) in a qualitative study established that doctorate research supervision is not only an academic development but also a platform for establishing excellent supervisor- supervisee relationship. He identifies psychodynamic, system approach and developmental supervisory models in doctorate programme student research. Regarding doctorate research supervision styles, Masek (2017) identifies directorial-contractual,

laisser-faire and structure-support supervision styles. The various issues with supervisors will often contribute to doctorate students arriving at a decision to either continue or discontinue with their studies.

Leijen et al. (2016) concurs and observes that it is not a surprise to understand that a supervisor is the most powerful person in doctorate studies. He or she will determine the fate of the doctorate students or even the research outcome. This is because a supervisor controls the most important aspects of a doctorate programme while guiding the student. These will include influencing the integration into a department or school, doctorate topic selection and final product of the research thesis. The issues raised by these scholars are important. They have however not clearly stated how institutional practices regarding doctorate supervision influence enrolment and completion rates which is of concern to the current study.

Roosj et al. (2019) in a descriptive study obtained data from 839 respondents in Netherlands universities. The study found out that supervisory factors related to quantity and quality had ramifications on the enrolment and completion of doctorate programmes. They further established that research outcome in doctorate studies is a product of high rate of supervision. Thus, supervisors need to support their doctorate programme candidates for a fruitful and a successful navigation through the programme. They need to do this through giving academic support geared towards research with the aim of providing the best results. A contradictory understanding emerge from their observation on the element of autonomy when supervising doctorate

students without giving a clear definition. The current study would endeavour to single out how the social support which could be extended to doctorate students while observing autonomy in the research process.

It is costly for doctorate students to be at cross purposes with supervisors which may cause friction resulting to difficulties in finding new supporting structures, isolation and confusion. Lauchlan (2019) in a study explains that doctorate students fear raising their concerns either to the supervisor or the university. This is because they are dogged by fear of the reprisals. They would rather address their issues anonymously. This can pose a challenge to doctorate candidates since proper guidance will miss. Abiddin et al. (2011) in a study established that cordial rapport between doctorate student and supervisor ensures successful completion of a research project. They further observed that an effective supervisor is critical in the study course and improve research growth (Abiddin et al. 2011). Therefore, the process of doctorate guidance calls for accommodation of the candidate's study interests. This would inspire and fortify the intrinsic desire of the candidate throughout the study period. The research would become exciting and sustain the student through the study period (Massyn, 2018). Doctorate student's motivation will ensure that the study becomes easy to manage and the rapport is good. This is supported by Ghani et al. (2012) who observe that supervisors oversee the student's research and provide advisory roles only. The reviewed studies did not adequately explore the supervisor relationship in doctorate studies. This research explored the extent to which doctorate students were free with their supervisors. Through interviews, the study would examine the modes of

communicating with both the faculty and the administration regarding their expectations and challenges by the doctorate students.

According to Nerad (2006), friendly rapport between the supervisor and the student is critical for timely completion of writing a doctorate thesis. Postgraduate thesis writing entails high levels of skill than that which is required for bachelor's thesis. However, many doctorate students may not be well conversant with the pre-requisite research skills. They are therefore compelled to seek for help from their supervisors. Depending on the guidance level and excellence of engagement, a doctorate programme research study can either be a satisfying and academically inspiring exercise or it may otherwise be a terrifying one. In China's experience, Ho, Wong and Wong (2010) revealed that distractions from doctorate research, for example, leisure exercises, life occurrences, family, children, friends, pregnancy, and looking after a child could lead to deferment of studies and consequent non completion. Moreover, Ho, Wong and Wong acknowledged issues like inability to grasp information related to procedures, absence of integration of thesis configuration procedure and the supervisor-student personal behaviours as the highest obstacles to thesis completion.

A study carried out by Onuka and Onabamiro (2010) affirmed that supervisors who do not seem to be troubled about the research work of students they are meant to monitor prompted thesis delays. The study further found out that this was caused by a large allocation of doctorate candidates that each lecturer is given for supervision. This meant that the supervisors are overwhelmed by the amount of work they handle. The study

recommends the change of doctorate assessment in order to inject effective doctorate supervision. These conclusions are consistent with Wamala et al. (2012), who established that universities offering doctorate programmes need to give strong therapeutic missions geared towards nurturing intellectual competence of fresh doctorate students especially those at the proposal development stage. It is valuable to doctorate programme students when their universities conduct seminars on data acquisition, carrying out research inquiry and writing academic work.

Linde (2012) underscores on the fact that both the student and their mentor should cultivate a collaborative approach in doctorate research project. Moreover, each one of these parties should endeavor to uphold the partnership. The supervisor endeavours to give expert's opinion on the study as well as psychosocial support and the doctorate student must be ready to learn in a more receptive manner. White and Coetzee (2014) concur and explains that both the doctorate candidate and the supervisor should exhibit friendship. The student depends on the supervisor entirely for guidance in the research process and thesis writing. Therefore, both parties should strive to have one-on-one meetings to discuss the progress. However, in circumstances where it is impossible, they need to organise for online meetings. In this case, the supervisor needs to initiate the meeting to demonstrate friendliness to doctorate programme candidates.

Doctorate programme students are more anxious about the treatment they are likely to receive from those guiding them than what their research is all about. They view rapport with thesis supervisors more crucial and argue that information can easily be recovered

if lost and not such with the relationships (Teklesellassie, 2019). It is therefore incumbent upon the universities' departments and schools to organise for activities which bring together supervisors and doctorate students to bond. Furthermore, doctorate students should be given a chance to choose both their topic of study and the supervisor who will guide them in the study based on their expertise and ability to work together (Ghani et al., 2012). While agreeing with this, Dinham and Scott (1999) observe that supervisor-supervisee relationship can be exciting or troublesome. This relationship has a consequence of lengthening the period of study at the doctorate programme or shortening it. Mouton and Cloete (2011) concurs by pointing out that lack of seriousness in doctorate supervision will lead to graduating half-baked doctorate. This is the case in the context of heightened demand to graduate more doctorate to mitigate the shortage in universities while those who are to train those doctorates never receive professional training.

A positive doctorate candidate-supervisor rapport can only be established by the doctorate candidate and the thesis supervisor (Bourhis, 2014). The rapport will characteristically work well when the candidate and the supervisor are truthful and devoted to one another. It is the duty of both the doctorate candidate and the supervisor to direct their energies towards a productive and harmonious association (Bourhis, 2014). When there are any disagreements or differences in views, it is imperative for both the doctorate candidate and the supervisor to discuss and have an understanding. This will prevent such disagreements from degenerating into a more serious struggle thus affecting the progress of the doctorate candidate (Bourhis, 2014). According to

Wamala and Oonyo (2011), appropriate supervision, appropriate feedback to students, frequent doctorate student-supervisor meeting, good relationship and timely commencement of thesis writing are elements which constitute good doctorate practices. Furthermore, excellent rapport between doctorate students and their supervisors ensure steady progress in doctorate studies.

Moreover, the doctorate student would also have better academic achievement. Protivnak and Foss (2009) posit that doctorate students perceive structured supervision and mentoring processes which include setting of deadlines and monitoring of thesis writing as facilitating timely doctorate completion. Gatfield (2005) observes that lacking supervisory skills is a hindrance to realization of doctorate production in Africa. Completion at doctorate level is highly connected with supervision. Woodward (1993) also observed that that a close and regular supervision is linked with successful doctorate programme completion. On the other hand, the demographics of the supervisors has an influence on supervision. Cullen et al. (1994) established that the demographics of the supervisor population such as age, gender, graduate education background and teaching responsibilities had a significant effect on how they conduct supervision.

The proposal developing process usually begins from identifying the research topic, developing a concept then seeking for approval of the thesis topic. Farrar and Young (2007) observe that in African universities, research proposals undergo various forms of evaluation. Sometimes, individuals who handle them may not be experts in those fields

proposed for study. They end up raising doubts on the methodologies used in carrying out research in those fields. This goes against the universities' policies that doctorate education takes three years thus end up taking more years. This kind of unforeseen delays may also be brought out by insufficient supervisors or huge workload they often have. A study by Ngolovoi (2006) concludes that heavy assignments and deficiency of competency among some faculty, could be influencing the excellence of university education Kenya. This is partially blamed to be contributing to low doctorate enrolment and deferred doctorate completions.

This study sought to establish the dynamics in supervision that influences completion rates at doctorate level. The study traced various cohorts at their various stages of doctorate programme supervision. It also sought to establish the rapport exhibited by the doctorate candidates and their supervisors as well as the influence of such on doctorate programme studies particularly in selected Kenyan public universities.

2.5 Institutional Resources and Doctorate Enrolment and Completion

Enhanced institutional resources are a parameter of measuring the quality of programmes mounted in higher education institutions. Resources such as well-equipped libraries, laboratories, funding, enough faculty members and lecture halls invaluable promote research in doctorate studies. Equipped libraries form a critical component of research since they are known gateways to data thus according the researchers with ability of access to invaluable information (Rong'uno, 2017; Ruiz; 2002). Doctorate students who have navigated well through their studies have had access to sufficient

resources, enhanced research practices, collections of research resources, knowledgeable researchers and dedicated places which offer an enhanced atmosphere for researchers (Ivankova & Stick 2007). Nevertheless, there are studies showing that most Kenyan public Universities are not sufficiently furnished with physical amenities such as print and electronic journals, instruction and research materials. Doctorate students and researchers are forced to operate under deplorable conditions (Eshiwani, 2009).

Okwakol (2008) in a survey study reported that many universities in Africa have insufficient physical facilities. Cheboi (2006) concurred by arguing that inadequate amenities compromise the quality of university education. The CUE Report (2016) indicates that insufficient learning resources affect considerably the worth of teaching and research in Kenyan universities. This is further compounded by the increased enrolment at undergraduate and master's level without considerable expansion of the learning resources. The ripple effect is evidenced at doctorate programme studies where the faculty is overworked without sufficient requisite facilities.

Doctorate funding stands out as a major variable that influences productivity of doctorate students. Caillaud et al. (2009) observe that poor financing is one of the main problems facing doctorate studies. The result of reduced public spending on doctorate has adverse impacts in terms of quality and teaching, and research training. Similarly, Mouton and Cloete (2011) in a study observe that insufficient financing for university education has stagnated research in most African universities. . The reduction of the

budget targeting university education continues to hurt research output. Koen (2007) concurs while considering insufficient funding of doctorate programme studies as a scenario in which students have difficulties in concentrating on their research work as they have to combine it with a job to help them raise sufficient funds to cater for their needs. For this reason, obtaining a doctorate may take longer or even abandoning it altogether. Financial difficulty or ability is thought to be a serious motivating or demotivating factor on completing a doctorate programme. Stock et al. (2009) concur by emphasizing that the influence of financial assistance on timely completion of doctorate degrees is an important aspect. This is true because as self-supporting doctorate student and graduate teaching assistant posts increase the time to doctorate programme completion. (Mohamedbhai et al. 2011).

On the other hand, the likelihood of non-completion of doctorate studies due to lack of funds is also high (Cobb, 2013). This has an overall impact in that candidates for the doctorate degree are likely to stay longer since they lack research funds that may enable them to collect data or even do experiments and even write their final thesis which is a culmination of doctorate studies. Wao (2010) agrees by stating that availability of funding determines the length of time taken to study for a doctorate degree programme. The World Bank report (2010) also indicates that in the past two decades, the African universities tripled enrolment while the budget to those universities continued dwindling. This means that enrolment is increasing at a rate which governments are not able to cope with and invest an equivalent amount of money towards it.

Mouton and Cloete (2011) asserts that significant increment in funding aimed ensuring that institutional resources are improved is urgently required. However, it is unfortunate that most African economies will not manage to support these demands. Certainly, this has exposed the state of research and doctorate productivity in Africa and Kenya in particular. Indeed, this is a precarious state in Kenya as public universities receive funding majorly from the exchequer. This study intends to establish the level of funding the Kenyan government and public universities have dedicated to research and doctorate studies. The World Bank (2010) report gave a raft of measures to ensure viable financing of university education. These measures pointed to cost-sharing as a way of reducing public expenditure on the university education. This study will establish the extent to which funding of doctorate education in Kenya is a variable influencing trends in enrolment and completion at this level of education.

Due to proliferation of online literature coupled with information seeking behavior patterns, doctorate students need to be guided on how to filter and pick relevant materials. Catalano (2013) emphasise that learners may need assistance on the best methods of accessing useful online research information. Such support can only be handled better by the librarian or anyone with knowledge on online information management skills. Due to information overload and failure for adult users to acknowledge they need help with certain aspects of their research, lack of access to quality information useful for research may affect the rate of completion of a doctorate programme (Secker, 2012; Sewell, 2017).

The university librarians play an important part in arranging information and availing it to the end-users among them, doctorate students. Consequently, they need to be proactive and demonstrate their ability of coping with the fast changing research terrain (Groenewegen, 2017; Sewell & Kingsley, 2017). Furthermore, universities with well-equipped libraries will endeavour to avail critical information for answering research projects questions. It is assumed that doctorate programme students possess some basic research skills (Jackson, MacMillan, & Sinotte, 2014). However, the doctorate learning process and research environment are dynamic. The duo is often influenced by technology, time and the discipline where the research students are engaged. University librarians come in handy due to their expertise, skills and knowledge about information searching. They also have deep understanding on proper utilization of databases and therefore are better placed to stand in the gap that overwhelms the research community. To serve the doctorate programme students better, librarians ought to be in a position to identify user's needs. This will then be followed with seamless provision of resources according to the individual needs identified, provide appropriate support and ensure resources accessibility. The challenge most universities face is inadequate library staff or even poorly trained ones who make the life of doctorate programme students difficult.

Mukiri, (2011) in a study reported that most of those who teach at the university mostly utilize personal materials to carry out research. The study further reported that those who teach at the universities are reluctant to utilize their materials to deliver content at the university without any form of reimbursement. The study established that resources

at the universities is a serious setback. Lecturers have no computers or functional internet, lack office space and thus skeptical of utilizing e-learning. Similarly, a study by Kang'ethe, Simiyu, Kihoro and Gichuru (2008) observed that scientific difficulties are experienced in most Kenyan universities with serious shortages of modern computers and uncertainty of reliable internet to stem e-learning. This affects online delivery modes for doctorate programmes since meeting cannot be held virtually. The study thus sought to establish how ICT resources influence doctorate programmes enrolment and completion among the Kenyan public universities.

An audit report by CUE (2016) indicates acute shortage of university faculty in Kenyan universities. This is against the university standards and guidelines established by the commission on the faculty to student ratio. Moreover, the standards guides that medical and technical courses ought to have a small student-faculty ratio. This is due to the fact that they need personalized attention and therefore manageable number will ensure that. The standards further outline the ratio for courses in social science which is a serious challenge in most public universities. The study sought to establish the influence faculty as a resource has towards influencing doctorate programme enrolment and completion rates in Kenyan public universities.

2.6 Summary of Literature Review and Gaps of knowledge

The review of related literature indicates that Kenyan universities are inherently faced with challenges of low doctorate enrolment and completion rates. The review indicates that enrolment and completion rates are higher in developed and fast developing nations

of the world when compared with developing nations like Kenya. Developing countries show a slow pace in growth which was attributed to a number of challenges such as funding, supervision, and policies among others. Despite the challenges, doctorate training is a robust field in most nations of the world as manifested in the interest of doctorate enrolment, which is increasing.

The literature review did not come across a study that specifically addressed the institutional practices influencing trends in enrolment and completion rates in doctorate programmes from public universities in Kenya. Most of the studies conducted concentrated on aspects such as expansion in higher education at undergraduate and masters' level and policies among others. At doctorate level, the review came across a single study in Kenya focusing on doctorate in education programmes only. This means that there is lack of empirical data on the institutional practices influencing trends in enrolment and completion rates in doctorate programmes among public universities in Kenya hence the current study. The literature in the study can be summarised in the following manner;

First, earlier studies globally indicate that developed and fast developing nations have an upward trajectory in doctorate enrolment and completion rates. Countries such as China are poised to graduate more doctorates than their economies would absorb. On the contrary, third world countries have low enrolment and completion rates while the demand for doctorates is ever growing. Kenya has insufficient number of doctorates to meet the growing demand of expanding university education and conducting research.

Enrolment is a mere 1.1% of both masters and undergraduate student population who ought to be served by the doctorates. The reviewed studies were mostly descriptive surveys. The current research utilised triangulation to obtain trends in doctorate enrolment and completion rates in selected Kenyan public universities to examine the phenomena.

Secondly, institutional doctorate programme procedures such as admission, integration in the doctorate social environment and mentorship posed challenges in the selected public universities. The study established that there were two avenues to doctorate admission in the selected public universities. These were through coursework plus thesis and the other one through thesis only.

Thirdly, doctorate supervision practices indicated lack of strong cooperation between the faculty and doctorate students. The current study could focus on the quality of social relationship and support that doctorate students receive from both the supervisors and the university's department and school. The elements of involvement where doctorate students would be exposed to academic seminars, conferences and research writing skills was critical for the study.

Fourthly, on institutional doctorate resources, the literature established that there was acute shortage of funds mostly in developing nations dedicated for research. Most countries had fewer doctorate holders which hinders mounting of quality programmes. Offices, current reading materials and internet were posed as serious challenges for

doctorate programmes in Kenya. These literature helped to identify gaps for the current study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This section describes how populations for the study were defined, how data was collected and analyzed. It comprises the research design that was adopted, the target population, sample and sampling procedures, research instruments and how validity and reliability of instruments was established. It concludes by indicating the data collection procedures and data analysis techniques that were adopted. In brief, it presents information on how the researcher went about selecting respondents for the study, collecting, analyzing, interpreting and presenting the data.

3.2 Research Design

This study employed a mixed method approach, embedded design in nature to examine institutional practices influencing trends in enrolment and completion rates in doctorate programmes from selected Kenyan public universities. Creswell and Clark (2007) opine that a mixed method approach encompasses gathering, examining, and interpreting qualitative and quantitative data in a single study in investigating the same underlying phenomenon. This design was therefore ideal since both qualitative and quantitative data was involved concerning the practices which influence enrolment and completion at doctorate degree level. Furthermore, the design was suitable for the study as it endeavored to yield and examine both observable phenomenon and statistical categorical data regarding institutional practices influencing trends in enrolment and

completion rates in doctorate degree programmes from public universities which is pertinent to all stakeholders in education.

The mixed method approach, embedded design in nature was deemed ideal since the study sought to establish both statistically recorded facts and thoughts from the respondents who were involved in the study. According to Creswell (2007), each research design selected for a study contains some degree of weaknesses. Thus, by selecting mixed methods approach, prejudice is minimised and reliability of the study enhanced. Statistically recorded facts were obtained from the selected public universities regarding trends in doctorate programmes' practices on enrolment and completion rates between 2003 and 2017. Furthermore, thoughts of the faculty and doctorate students were sought with regard to doctorate programmes' enrolment and completion rates within their universities. This was a critical component of the study since it could enable the researcher to establish whether respondents understood variables determining trends in doctorate programme enrolment and completion from the public universities in Kenya.

3.3 Study Location

This study was conducted in four selected Kenyan public universities namely; the University of Nairobi (UoN), Moi University (MU), Kenyatta University (KU) and Egerton University (EU). The University of Nairobi is located along Uhuru Highway, the University Way and Harry Thuku Road within the Central Business District (CBD) of Nairobi County. Nairobi is both the political and commercial capital city of Kenya. Kenyatta University is located in Kiambu County, twenty-three (23) kilometers from

Nairobi CBD along the Thika Super Highway on the left from Nairobi city. Moi University is situated in Uasin Gishu County approximately twenty-three (23) kilometers from Eldoret Town which is the headquarters of the county. Finally, Egerton University is located in Nakuru County within Njoro Sub-County approximately ten (10) kilometers off- Nakuru –Eldoret Road. These universities were purposively selected being the oldest in terms of establishment, have established doctorate degree programmes that have been in existence for long and a high number enrolled in these programmes as well as graduating doctorates for over fifteen (15) years in a row. Diversity of the doctorate programmes was also key in the study.

3.4 Target Population

The study targeted all 6000 doctorate degree programme students from all public universities in Kenya. The particular focus was on doctorate students in Education, Arts and Social Sciences and Pure and Applied Sciences disciplines, deans of schools offering disciplines in Education, Arts and Social Sciences and Pure and Applied Sciences, and faculty members teaching these disciplines drawn from the University of Nairobi (UoN), Moi University (MU), Kenyatta University (KU) and Egerton University (EU).

3.5 Sampling Techniques and Sample Size

3.5.1 Sampling Techniques

The study adopted a multi-stage sampling technique, first step, the universities were identified, followed by the schools and finally the departments. As such, purposive

sampling was used to select the specific department to pitch the study. Purposive sampling technique is employed when the researcher knows where to obtain the required data with regard to the objectives of the study. Cases of subjects are therefore selected because they are informative or they hold the essential characteristics (Mugenda & Mugenda, 2003). In this study, purposive sampling was done as part of multi-stage sampling technique, in which case purposive technique is used to get the departments in which the units of observation had the required characteristics. Two sets of participants constituted the sample frame for this study. The first group consisted of candidates currently enrolled for doctorate studies or those who have enrolled and cleared between the year 2003 and 2017. The second group comprised the teaching faculty across the sampled institutions and departments.

In order to arrive at the eventual study participants, the researcher sampled four public universities from the thirty one (31) public chartered universities in Kenya. The choice of four public universities was guided by the fact that they are the first four oldest universities in terms of establishment in Kenya (see Appendix R). They also have the most experienced faculty members who teach and supervise the doctorate programme students. They were also deemed to have enhanced infrastructure which is instrumental in mounting doctorate degree programmes. These universities also have homogeneous doctorate degree programmes in schools selected which were of interest to the study. These four universities were deemed to be representative of public universities in Kenya with regard to doctorate programme education.

Stratified sampling was used to sample schools and faculties into three major categories; Education, Arts and Social Sciences, Pure and Applied Sciences. Further, stratified sampling was used to select departments in order of their establishment. This was necessitated by the fact that the researcher was interested in getting specific participants possessing particular characteristics that could meet the objectives of the study.

A simple random sampling was used to select the male and female faculty members and doctorate students who participated in the study. All deans of schools or faculties and chairpersons of departments were included in the sample. Therefore, including participants with information concerning the area of study was critical for this study (Orodho, 2008).

3.5.2 Sample Size

Four universities were sampled from the thirty one (31) universities targeted. Then in each of these four universities, faculties with doctorate programmes in Education, Arts and Social Sciences as well as Pure and Applied Sciences relating to focal areas of the study were sampled.

It was established that the four universities had a total of forty-nine (49) schools (faculties). These are distributed as follows; the University of Nairobi (UoN) - six (6) colleges, Kenyatta University (KU) - nineteen (19) schools, Moi University (MU) - fifteen (15) schools, and Egerton University (EU) - nine (9) schools.

Three schools from each of the universities were sampled which were the oldest and having homogeneous doctorate programmes which have been in existence for over fifteen years. Further, the researcher established that the universities have a total of two hundred and sixty (260) departments distributed as follows; UoN has seventy-six (76), KU has sixty-seven (67), MU has sixty-six (66) and EU has fifty-one (51). The researcher narrowed the study and sampled sixteen departments (16) based on their order of establishment and a further twelve (12) deans and academic staff.

Orodho (2009) proposes that due to limitations in time, funds and energy, a study can be done from a keenly obtained sample to characterize the entire population. Mugenda and Mugenda (2003) further opine that in many social science research studies, a sample study of at least 30.00% of the population is a good representation. Thus, the study used 30% of every category of population selected. This study thus used 30.00% of the target population for both lecturers, deans of schools or faculties, and doctorate students. This is presented in Tables 3.1, 3.2 and 3.3.

Table 3.1: Total Sample Size distribution

The total number of the doctorate students targeted was 3,219 who had been registered for various doctorate programmes in the sampled universities between 2003 and 2017. They were distributed as follows;

Table 3.1: Total Sample Size Distribution

Gender	University				Totals
	UoN	KU	MU	EU	
Male	626	469	355	388	1838
Female	434	344	306	297	1381
Totals	1,060	813	661	685	3,219

(Source: University Admission Records)

Out of 3,219 enrolled for various doctorate programmes, the researcher was able to establish the records for 2,753 respondents to participate in the study. The researcher then took 30.00% of 2,753 of the respondents who were distributed in the four universities' schools and departments. This gave 826 respondents distributed in the four universities by faculty and gender as shown in table 3.2

Table 3.2: Sample size of doctorate students

Schools	Departments	Public universities								
		UoN		KU		MU		EU		Total
		M	F	M	F	M	F	M	F	M&F
Education	1	27	24	25	16	12	9	11	9	141
	2	11	6	13	9	10	7	18	30	119
	3	9	4	6	3	3	2	-	-	27
	4	10	9	4	1	-	-	4	2	45
Pure and Applied Sciences	1	6	2	5	4	4	2	2	0	29
	2	3	2	4	2	4	1	5	4	30
	3	8	6	6	3	4	4	4	2	42
	4	7	6	4	3	3	2	6	5	40
Arts and Social Sciences	1	16	14	13	11	6	4	10	7	87
	2	13	9	9	8	3	2	11	7	69
	3	23	19	16	11	6	5	5	3	93
	4	16	19	11	12	5	7	9	6	96
TOTAL	12	149	120	116	83	60	45	85	75	826

Sources: Universities' enrolment statistics (2017).

Information from Table 3.2 indicate the sample size distribution of the respondents in the four universities. A total of 826 candidates enrolled for various doctorate degree programmes in the sampled universities.

Table 3.3: Sample Size for University Administrators

Officers	Public Universities				TOTALS
	UoN	KU	MU	EU	
Deans	3	3	3	3	12
CPD/ HoD	12	12	12	12	48
Lecturers	89	93	58	49	289
TOTALS	104	108	73	64	349

Source: **Universities' Human Resource Departments (2017)**

Using the sample size of 30.00%, the study targeted 105 university deans of schools and members of the academic staff.

Table 3.4: Sampled Universities and Departments

University	College/School/Faculty	Department
UoN	College of Education and External Studies	Educational Administration and Planning Educational Communication and Technology Educational Foundations
	Biological and Physical Sciences	Chemistry Physics Geology Geography and Environmental Studies
	Humanities and Social Sciences	Psychology Philosophy and Religious Studies Linguistics and Languages
KU	Education	Educational management and Policy studies Education Communication and Technology Educational Psychology Educational Foundations
	Pure and Applied Sciences	Chemistry Physics Mathematics and Actuarial Sciences Zoological Sciences
	Humanities and Social Sciences	Geography Psychology Philosophy and Religious Studies Literature, Languages and Linguistics
MU	Education	Educational management and Policy Studies Curriculum Instructions and Media Studies Educational Psychology Educational Foundations
	Biological and Physical Sciences	Chemistry and Biochemistry Mathematics and Physics Statistics and Computer Studies Biological Sciences
	Arts and Social Sciences	Geography Sociology and Psychology Philosophy and Religious Studies Literature, Theatre and Film Studies
EU	Education and Community Studies	Instructional and Educational Management Psychology, Counselling and Educational Foundations and Curriculum Applied Community Development Studies Agricultural Education and Extension
	Arts and Social Sciences	Philosophy, History and Religion Literature, Languages and Linguistics Peace, Security and Social Studies Economics
	Science	Chemistry Physics Zoology and Mathematics Biochemistry and Molecular Biology

3.6 Instruments for Data Collection

The study employed the following tools in data collection; questionnaires, interview schedule and documentary analysis.

3.6.1 Questionnaires

This study used questionnaires in data collection. Questionnaires are important because they enable the researcher to get comparable responses. According to Kombo and Tromp (2006), contend that questionnaires measure possibility of honest, uniform and direct answers. They furthermore enable respondents to express what they feel is unacceptable when said orally. Mugenda and Mugenda (2003) emphasise that questionnaires possess some form of inbuilt characteristics capable of intriguing the respondents to state information in an open-minded manner. This is particularly the case when anonymity of the respondents is guaranteed. The researcher designed questionnaires for two main categories: doctorate programme students and university administrators. They contained both closed and open-ended questions for the identified respondents.

3.6.1.1 Questionnaire for Doctorate students

This tool was designed to stratify doctorate students in terms of programme of study, the mode of study whether full-time or part- time. It sought information with regard to programme financing, type of doctorate degree programme, other responsibilities held by doctorate students as well as challenges they face in their studies. The questionnaires further sought to solicit their views on institutional practices influencing trends in

enrolment and completion rates in doctorate programmes of their university; the nature of existing doctorate degree programmes and how the existing doctorate degree programme policies have influenced enrolment and completion rates. Furthermore, the questionnaires sought the respondents' suggestions on policies and interventions which could be adopted to increase enrolment and completion rate in doctorate programmes from Kenyan public universities. (See Appendix A).

3.6.1.2 Questionnaire for university administrators

This instrument sought information on the study objectives with regard to the role of administrators in doctorate degree programme management. In addition, it sought data on low doctorate degree enrolment and completion rates from public universities in Kenya. Finally, it sought the respondents' suggestions on the policies and practices which if implemented could boost the enrolment and completion rates in doctorate programmes from Kenyan public universities. (See Appendix B).

3.6.3 Interview Schedule

An interview involves collecting data through posing of direct verbal questions to the respondents. An interview has an enhanced response rate since the respondents are involved more in the process and encouraged. They also know much about the problem under study and therefore implicitly incline to give detailed information. Interview is more flexible as the interviewer pursues ideas and thoughts that emerge in the course of the interview consequently boosting clarity of questions being discussed (Talmy, 2010). Interviews were done to obtain fundamental data from the Deans of schools or faculties

offering doctorate degree programmes, faculty and doctorate students from the four selected public universities in Kenya. The interviews obtained data on institutional practices; process of enrolment into doctorate degree programmes, mode of study, supervision process, financing of the studies and trends in completion rates. The policies guiding doctorate degrees were also explored and the suggestions on institutional policies and interventions to encourage enrolment and completion of doctorate degrees from public universities in Kenya. The main purpose for conducting interviews was to enable the researcher obtains critical information regarding institutional practices influencing trends on doctorate programmes enrolment and completion rates. This information was recorded through the short hand notes. (See Appendix C and D).

3.6.4 Analysis of Key Documents

Analysis of documents depends on information stored in print media. They are utilised as they contain data which are interpreted by the researcher to give meaning around a topic under study ((Bowen, 2009). Documentary records from the sampled universities were analysed by the researcher particularly on doctorate degree programme enrolments and completion rates in Education, Arts and Social Sciences and Pure and Applied Sciences disciplines. This was purposely done to have clear trends on the direction the doctorate degrees completion course has taken over time with a possibility of establishing the variables behind such trends. The following documents were analysed;

- i) Doctorate programmes enrolment statistics (2003-2017).
- ii) Graduation booklets (2003-2017).

iii) Academic staff establishment in the selected universities.

The documentary analysis guides were developed to help the researcher obtain data on enrolment and completion from the sampled universities. (See appendix E).

3.7 Piloting Study

Pilot study was done to enhance the content validity and reliability of the research instruments. This was carried out in Maseno University which possessed the same characteristics as the four sampled universities in terms of doctorate degree programmes in selected disciplines. The pilot study enabled the researcher to establish the level to which tools were able to obtain consistent data (Kombo & Tromp, 2006). The pilot study therefore was a mini-research intended to examine logistics and collect data prior to the actual study. This was intended towards improving the quality and efficiency of the major study. It was also used to establish any weaknesses which was contained in the research instruments. It would reveal whether the research instruments were reliable and valid before the actual study. For the purpose of this study, validity and reliability was seen as:

3.7.1 Validity of Research Instruments

According to Kombo and Tromp (2006), validity is the degree to which outcome obtained from the investigation of the information really characterize the phenomenon under study. The researcher relied on individual perceptions and applied triangulation to collect data. This enabled the researcher to detect any inconsistencies and correct them before proceeding to the actual research. Content validity was scrutinized to guarantee

that the tools responded to all research questions (Mahoney, 2010). Based on the analysis of the pilot study results, the researcher made corrections, adjustments and additions to some research instruments. This facilitated authenticating the accuracy of the data obtained from one tool and to further exhaustively clarify the fruitfulness and intricacy of each of the instruments used.

3.7.2 Reliability of Research Instruments

Reliability of the instruments was done so as to determine the extent to which the instruments produced consistent results. Kombo and Tromp (2006) observes that this is a measure to which a research tool obtains same results or data after recurrent trials. The reliability test sought to establish the dependability and trustworthiness of an instrument (Brick & Green, 2007). The researcher, therefore, determined the reliability of instruments which enabled the trustworthiness of the data to be collected on actual research.

3.7.3 Results of the Pilot Study

The factors analysis was espoused in order to minimise the number of indicators under each research variable and retain only those indicators relevant in explaining the current study variables. The factor analysis is an investigative tool used to help the researcher make decisions on whether the variables under exploration explain the dependent variable (Field, 2005). Tabachnick and Fidell (2007) offer a range of ratings that define the foundation of accepting factor loadings that range from 0.32 (rated as poor), 0.45 (fair), 0.55 (good), 0.63 (very good) or 0.71 (excellent). In order to measure the

reliability of the gathered data, Cronbach's alpha was applied. According to Zinbarg (2005), Cronbach's alpha is a coefficient of reliability that gives an unbiased estimate of data generalizability. An alpha coefficient of 0.70 or higher indicates that the gathered data is reliable as it has a relatively high internal consistency and can be generalized to reflect opinions of all respondents in the target population (Zinbarg, 2005). Table 3.4 below shows the reliability results for the variables in the current study.

Table 3.5: Reliability Statistics

Variable	Cronbachs' Alpha	Number of Items
Institutional doctorate programme procedures	0.904	7
Doctorate Supervision Process	0.922	8
Institutional Doctorate Resources	0.82	4
Doctorate Enrolments and Completion	0.971	4

The results in table 3.5 show that all the issues related to institutional doctorate programme procedures, doctorate supervision process, institutional doctorate resources and doctorate enrollments and completion were established to have a factor loading of 0.4 and above. Consequently, they were used in the successive analysis. The results in table 3.5 show that all the factors related to institutional doctorate programme procedures, doctorate supervision process, institutional doctorate resources and doctorate enrollments and completion were found to have a Cronbachs' alpha of 0.7 and above. Consequently, they were also used in the analysis of data for this current study. This is also qualified by its reliability results for this current study.

3.8 Data Collection Procedure

Data collection procedure may involve two major phases; primary and secondary phases (Patton, 2002). The primary phase is simply a preliminary phase while secondary entails actual data collection. Consequently, the initial phase involved obtaining requisite permission from NACOSTI and the sampled universities. The second phase entailed the actual data collection from the sampled universities.

3.8.1 Steps in Data Collection

Collection of the primary data was done using questionnaires and interviews. The secondary data involved was gotten from the sampled universities documents on enrolment and completion. Enrolment information was obtained from doctorate admission repositories while graduation information was obtained from graduation booklets.

3.8.2 Questionnaire distribution

The researcher liaised with deans of schools who guided on how doctorate programmes classes were conducted. This helped to understand the most ideal location to meet the doctorate students. With the help of four research assistants in the selected universities, questionnaires were distributed to both doctorate students and faculty members.

3.8.3 Interviews schedules

This was actualized by the researcher. The researcher visited the offices of the deans and faculties to book an appointment. The calls were made to those who could not be

available in the office due to official engagements. This facilitated on firming up agreements on the actual day and time for the interviews. When the bookings were being done, the researcher introduced himself and explained that the research was for academic purposes. Further, the respondents were explained to that participation was voluntarily. The researcher assured the respondents that the data obtained will be handled with utmost privacy. Actual interviews were done with the support of the study helpers. The information was recorded both electronically and manually.

3.8.4 Collection of the secondary data

This type of information for the study was obtained from the universities' repository records. Some of the records accessed were doctorate programmes' admission, staff establishment and graduation booklets.

3.9 Data Analysis and Presentation

Data obtained from the study were analysed both qualitatively and quantitatively guided by the study objectives. The questionnaires had both the open-ended and closed-ended questions. Data obtained from the open-ended questions and interviews were coded and transcribed then organised and analysed in their thematic areas. Further, quantitative data obtained were analysed using the Statistical Package for Social Sciences (SPSS version 22.0.0), summarised using descriptive statistics of the bar-graphs, pie-charts, frequency tables and percentages. Analysis enabled drawing of conclusions and recommendations for the study.

3.10 Ethical and Logistical Considerations

3.10.1 Ethical Considerations

The researcher assured the respondents privacy and confidentiality through concealing their identity both at the level of instruments used in collecting data and in the final report. Furthermore, the purpose of the study as well as the process involved in data collection was clearly explained to the respondents. This would enable them make informed choices of participating in the study and giving detailed information on the items presented. Approval for recording responses during interviews were done with the authority of the respondents involved in the study.

3.10.2 Logistical Considerations

First, the researcher sought for official permission to undertake the study through obtaining a research permit from the National Commission for Science, Technology and Innovation (NACOSTI). Further, the researcher sought for consent and approval through the offices of the vice chancellors of the selected institutions to access data relating to enrolment and completion rates in doctorate degree programmes. The researcher made prior arrangement of booking for consultation with the respondents to avoid time wastage and inconveniences on either parties. This was attained by visiting the administration to request the Dean of schools and faculties, and Heads of Departments for permission to carry out research in their respective areas of operation. This also helped the researcher to establish the time table for doctorate students as a

way of facilitating the study. The researcher also established when to conduct interviews with the respondents.

CHAPTER FOUR

PRESENTATION OF FINDINGS, INTERPRETATION AND DISCUSSION

4.1 Introduction

This chapter presents the findings, interpretations and discussions centered on the study objectives and research questions. The following were the objectives of the study;

- i. Analyse the trends in doctorate programmes enrolment and completion rates from selected public universities in Kenya for fifteen years (2003-2017).
- ii. Assess how institutional doctorate programme procedures influence enrolment and completion in selected Kenyan public universities.
- iii. Evaluate how institutional doctorate supervision practices influence completion in selected Kenyan public universities.
- iv. To explore the extent to which institutional resources influence doctorate enrolment and completion in selected public universities Kenya

This chapter is structured into various parts around demographic information of respondents and the study objectives. The details of the characteristics of the sample studied and the demographic data of the respondents are outlined. Thereafter, the chapter focuses on the thematic areas of institutional practices influencing trends in enrolment and completion rates in doctorate programmes from selected public universities in Kenya. These are; trends in doctorate programmes enrolments and completion rates from selected public universities in Kenya, institutional organisational structures and doctorate programmes enrolment and completion rates from selected

public universities in Kenya, doctorate supervision practices and doctorate completion rates from selected Kenya public universities and institutional resources and doctorate programme enrolment and completion rates from selected public universities in Kenya. Finally, the chapter ends with the section that summarises and draws some conclusions from the presented findings and discussions.

4.2 Characteristics of the Study Sample

This study sought to establish and analyze institutional practices influencing trends in enrolment and completion rates in doctorate programmes from selected Kenyan public universities. To realize the purpose of this study, four public universities namely; University A (University A), University B (University B), University D (University C) and University C (University D) were purposively sampled out of the current thirty one (31) public universities in Kenya during the period of the study. These public universities were selected on the basis of being the oldest universities in terms of establishment. They are also believed to possess the most experienced faculty members and enhanced infrastructure that are instrumental in mounting doctorate programme education. Furthermore, these universities are believed to have offered the doctorate programmes for fifteen or more years in the areas of the current study. Finally, these universities also have homogeneous doctorate programmes which formed an interest to the current study.

The Kenyan public universities were aware of the increased need for individuals with doctorate degree qualifications as indicated through the sampled universities' doctorate

programmes policies. This was reflected in the universities Strategic Plans (Strategic Plans: University A (2019-2024), University B (2016-2026), University D (2019- 2023) and University C (2018-2023). Each of these policies gave a projection of the number of doctorates to be graduated at the expiry of strategic plans. The deans of faculties and schools, heads or chairpersons of departments housing doctorate programmes and doctorate students in those respective universities formed the sample for the study.

4.3 Response Rate for doctorate Students

The intended sample size for the study was 826 doctorate programmes candidates who have enrolled and are either ongoing or completed their doctorates between the year 2003 and 2017. The researcher sent out a total of 826 self-administered questionnaires to the respondents (doctorate candidates) spread across the four Universities targeted for this study. Out of the 826 questionnaires, 502 questionnaires were filled and returned by the respondents translating to a response rate of 60.77%. This response rate ensured sufficient data was available which could be generalized to determine the study variables. Orodho (2009) observes that a response rate of above 50.00% contributes towards gathering of sufficient data that could be generalized to represent the opinions of respondents about the study problem. Sekaran (2008) argues that any response above 75% is classified as best. This is presented in Table 4.1

Table 4.1: Response Rates of the Doctorate Students

Universities	University A		University B		University C		University D		TOTALS
Gender	M	F	M	F	M	F	M	F	
Individual Response Rate	76	84	97	68	69	54	30	24	502
Response Rate (%)	15.14	16.73	19.32	13.55	13.74	10.76	5.98	4.78	100.00

Sources: Researcher's Analysis (2019)

4.4 Response Rate for University Administrators and Faculty Members

The intended sample size for university administrators and academic members of staff was 106.

The researcher sent out a total of 105 self-administered questionnaires to the respondents (university administrators and academic members of staff) spread across the four Universities targeted for this study. Out of the 105 questionnaires sent out to the university administrators and academic members of staff, 81 questionnaires were filled and returned by the respondents translating to a response rate of 77.14%.

4.5 Demographic Information of the Respondents

The demographic information of the respondents was established since it has direct implications on trends in enrolment and completion rates of doctorate programmes in public universities. The demographic information of the respondents also indicates their experience and professional developments which determines the trustworthiness and the

quality of the information provided. The gender, position held by doctorate programme administrators and their respective designation was established. The doctorate students' demographic information was also established as shown below.

4.5.1 Doctorate Students' Demographic Information

The doctorate students' demographic data was considered vital because it has a link to the variables which influence enrolment and completion of the doctorate programmes. The demographic information obtained was gender and area of study, age and the mode the study was delivered through. The gender and academic programmes of the candidates who participated in the study were also captured. The aim was to determine their gender and doctorate programme of study distribution across schools and departments in the selected public universities in Kenya and how this influenced doctorate enrolment and completion from public universities.

The gender dispersion of the doctorate programme students who took part in the study were as follows: University A had 76 males and 84 females, University B had 97 males and 68 females, University C had 69 males and 54 females while University D had 30 males and 24 females' respondents respectively). Overall, the majority number of the doctorate programme students who were engaged in the study were male accounting for 54.18% whereas the female doctorate students were 45.82% of the students' respondents. This was summarized and presented in Table 4.2 below.

Table 4.2 Doctorate Candidates Respondents Percentage Distribution

University	Male	Female
University A	76	84
University B	97	68
University C	69	54
University D	30	24
Total	272	230
Percentage	54.18	45.82

Sources: Researcher's Fieldwork Analysis (2019)

The doctorate candidate percentage distribution of 54.18% male and 48.52% female respectively is in line with a study carried out by Yusuf, Felicia and Aina (2018) on demographic information. The study reported that in any study, the respondents' demographic information demonstrate whether they were representative enough. The percentage distribution confirms that the representation was sufficient for the study.

4.5.2 Age Bracket of the Doctorate Students

The study also sought to find out the age bracket of doctorate programme students. Data regarding the age of the doctorate programme students was considered significant since it envisages probable socioeconomic duties of the doctorate candidates, which may have influence on the enrolment into a doctorate degree programme and consequent time of completion. The researcher encountered difficulty in accessing admission data since part of the data was recorded and stored manually, this forced the researcher to engage a tracer tool to retrieve, collect and collate critical enrolment statistics. This led to the final number of the respondents for the current study as summarised in the Table 4.3

Table 4.3 Summary Dispersion of Age and Gender of Doctorate Students

Universities	UoN		KU		MU		EU		Totals		Percentage	
	M	F	M	F	M	F	M	F	M	F	M	F
18-28 years	-	-	-	-	-	-	-	-	-	-	-	-
29-39 years	12	13	18	21	19	15	9	7	58	56	21.32	24.35
40-49 years	51	56	63	39	36	28	13	11	163	134	59.93	58.26
Over 50 years	13	15	16	8	14	11	8	6	51	40	18.75	17.39
Totals	76	84	97	68	69	54	30	24	272	230	100.00	100.00

Sources: Researcher's Fieldwork Analysis (2019)

The data in table 4.3 above indicates that the highest percentage (59.93% for males and for 58.26% females) of the doctorate students who took part in the study fall between 40-49 years. The findings that the average age for enrolling for doctorate studies is in agreement with Wamala, Ocaya and Oonyu (2012) whose studies established that the median age for enrolling for doctorate studies was 37 years while Jairam and Kahl (2012) established the age as 43 years. Those who fall between 29-39 years of age consisted of 21.32% males and 24.35% respectively. Those in the age bracket of 28-38 years of age were considered young and majority may be settling down in life therefore doctorate degree programme may not be of priority to them.

4.5.3 Doctorate Programme Mode of Study

The mode of studying doctorate programmes doctorate students were enrolled in was also analysed. These were school-based, regular part-time (evening and weekend) or regular full time. The motivation behind this was to explore whether mode of studying

doctorate programmes determines the amount of time a doctorate student takes to earn a degree. Table 4.4 gives a summary of the information about the mode of study.

Table 4.4 Doctorate Programme Mode of Study

Mode of Study	University					
	UoN	KU	MU	EU	Totals	%
Regular /Fulltime	26	29	23	11	89	17.73
School-based	22	51	37	23	133	26.49
Part-time (Weekend and Evenings)	78	54	49	16	197	39.24
Open and Distance Learning	34	31	14	4	83	16.54
Totals	160	165	123	54	502	100.00

Sources: University doctorate Enrolment Statistics (2017)

The data described in Table 4.4 shows the highest percentage consisting of 39.24% of doctorate students who took part in the study were enrolled for part-time doctorate programmes while school-based had 26.49% of those enrolled in the doctorate degree programmes in the sampled universities. On the other hand, regular full time doctorate students consisted of 17.73% and 16.54% were in distance learning programmes. From the summary therefore, it can be deduced that part-time mode of study was preferred by most doctorate programme students. This was adduced to the fact that they were working class people thus this mode was the most appropriate for them.

4.5.4 Designation of the Lecturers

Table 4.5: Academic Staff Ranking

University	Professors	Senior Lecturers	Lecturers	Totals
UA	5	14	6	25
UB	5	11	7	23
UC	5	7	6	18
UD	4	5	6	15
Totals	19	37	25	81
%	23.46	45.68	30.86	100

(Sources: Universities Staff Establishments, 2018)

Interpretation from Table 4.5 indicates that the highest number of the respondents in this category were senior lecturers comprising 45.68% while professors formed 23.46% and lecturers had 30.86% respectively. Furthermore, the above academic staff (lecturers) who participated in the study had other responsibilities besides teaching. These responsibilities were deemed to be important since as the administrators of the doctorate programmes, they hold crucial information with regard to policies and practices of their respective universities that have a direct influence on enrolment and completion at doctorate level.

The information indicates that senior lecturers led the pack of the respondents in the study followed by lecturers and professors came in last. This was interpreted to mean that since these universities have been in existence for a long time, most of their academic staff have since moved from the lecturer position to the senior lecturer. There seems to be a low transition from senior lecturer to professor position. Those who are

being employed as lecturers are also few. This was interpreted to mean that since the government froze employment, new entrants into the position are only those who had been engaged by these universities as tutorial fellows and upon attaining a doctorate degree, they were promoted to lecturer's position. The information regarding the position held by the academic staff was analysed and presented in Table 4.6

Table 4.6: Position of Responsibility of the Academic Staff

Position	Universities				Totals	Percentage %
	Unive	Univ	Unive	Univ		
	rsity	ersit	rsity	ersit		
A	y B	C	y D			
Deans/Director BPS	4	4	4	4	16	19.75
HODs/COD	2	2	2	2	8	9.88
Departmental doctorate Programme Coordinators	1	2	2	2	7	8.64
Lecturers	11	17	13	9	50	61.73
Totals	18	25	21	17	81	100.00

Sources: Universities' HR Department (2019)

According to data in Table 4.6 the majority of the respondents comprising 61.73% were lecturers while deans were 19.75% of the respondents, the heads of departments consisted of 9.88% while departmental doctorate programme coordinators formed 8.64% of the respondents.

4.5.5 Lecturers' Gender

Table 4.7: Faculty Distribution by Gender.

Gender	University				Totals	%
	University A	University B	University C	University D		
Male	17	13	9	7	46	56.79
Female	11	9	7	8	35	43.21
Totals	28	22	16	15	81	100.00

(Sources: Universities Staff Establishments, 2019)

Data from Table 4.7 indicates that male faculty respondents consisted of 56.79% demonstrating that they were slightly higher than female faculty respondents who were 43.21% in all the selected four universities.

4.6 Presentation of the findings

4.6.1 Trends in Doctorate programme Enrolment and Completion

The first research objective was to establish trends in doctorate programmes enrolment rates from the sampled four universities covering the period of study between 2003 and 2017. Documentary analysis of enrolment was obtained from the universities indicating those who had been duly registered for various doctorate programmes. A review of the admission criteria established that there are two alternatives to admission into a doctorate programme, the first one entails course work followed with presenting a concept paper. This was meant for those doctorate programmes which have both course work and thesis. The second alternative is through thesis only, in this alternative, the doctorate student must first write a concept paper which will be used to identify the

student's area of study and then assigned the supervisors based on the expertise in the area. The candidate will then develop a research proposal and present it at the department or school upon which the doctorate candidate will proceed for data collection upon obtaining the relevant licenses and documentation. The information was collated and presented as one for all universities first. Then this information was analyzed to indicate the trends of enrolment per university. This is presented in Table 4.8.

Table 4.8: Summary Trends in Doctorate Programmes Enrolment (2003-2017)

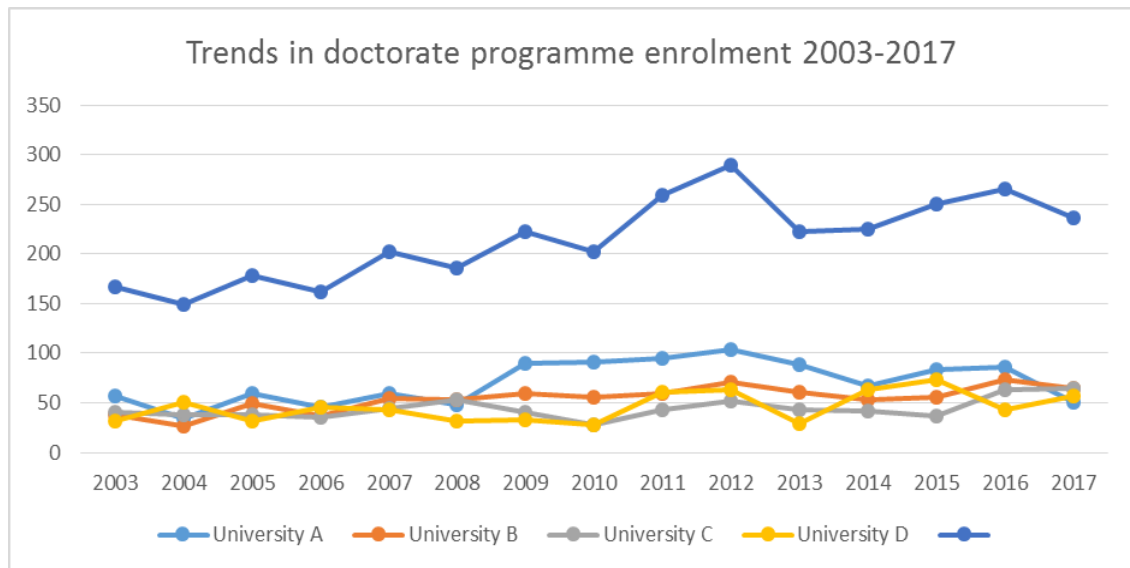
Year of enrolment	University A		University B		University C		University D		TOTALS		
	M	F	M	F	M	F	M	F	M	F	M&F
2003	36	21	22	16	21	19	17	15	96	71	167
2004	19	15	14	13	25	13	24	26	82	67	149
2005	36	23	31	18	22	16	17	15	106	72	178
2006	26	19	24	13	16	19	28	17	94	68	162
2007	33	27	29	26	23	21	24	19	109	93	202
2008	25	23	29	24	26	27	19	13	99	87	186
2009	44	46	31	28	23	18	19	14	117	106	223
2010	55	36	27	29	17	11	16	12	115	88	203
2011	57	38	33	27	26	17	33	28	149	110	259
2012	61	43	37	34	29	23	38	25	165	125	290
2013	58	31	32	29	19	24	15	14	124	98	222
2014	43	24	30	23	23	19	37	26	133	92	225
2015	53	31	43	13	23	14	41	32	160	90	250
2016	57	29	48	25	34	29	23	21	162	104	266
2017	23	28	39	26	28	36	37	20	127	110	237
Totals	626	434	469	344	355	306	388	297	1838	1381	3219

(Sources: Universities Admissions Records 2003-2017)

The summary from Table 4.8 demonstrates that a total of 3,219 students enrolled for various doctorate programmes in the selected universities between the year 2003 and the year 2017. Out of this number, there were 1,838 male students who enrolled for the various doctorate programmes in the universities studied while there were 1,381 female

candidates enrolled for various doctorate programmes in targeted universities between the period of 2003 and 2017. The data indicates that enrolment into doctorate degree programmes in the selected public universities was not uniform. The data visualized to show the trends as per Figure 4.1.

Figure 4.1: Trends in Doctorate programme Enrolment (2003-2017)



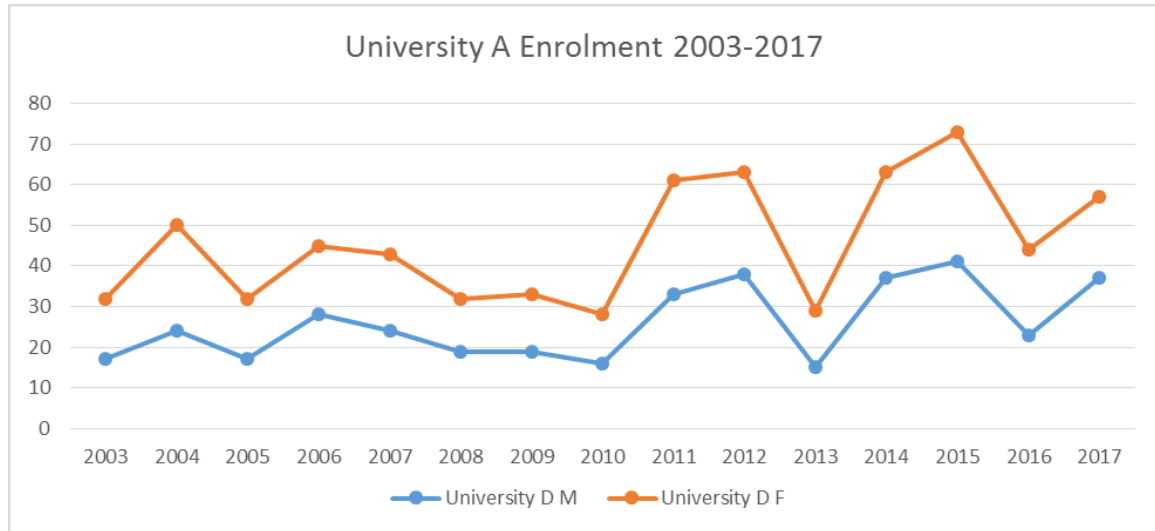
Sources: Researcher's Analysis (2019)

The trends indicate a dismal growth in doctorate degree programme enrolment in all selected universities. The lowest being between year 2003 and 2008. The situation slightly improves but not satisfactory when compared to the demand of doctorates required by the Kenyan university education and research output for knowledge economy. Generally, more males than females were enrolled for doctorate degree programmes in all the selected universities during the period under review. Doctorate programme enrolment per university was analysed and presented in the subsequent discussions below.

4.6.2 Doctorate Programme Enrolment Trends - University A

Trends in doctorate programme enrolments at the University A during the period of study was determined and presented in Figure 4.2

Figure 4.2 Trends in Doctorate Enrolment at the University A



Sources: Fieldwork Analysis (2019)

Trends in doctorate programme enrolment at the University A indicate slow growth over the period of study. The highest enrolment growth trends were experienced between the year 2008 and 2013. This could be attributed to the emphasis from the Ministry of Education and later by the Commission for the University Education (CUE) that only individuals with doctorate degrees could be allowed to lecture at universities in Kenya. The year 2014 experienced the lowest enrolment of doctorate students for the sampled schools which sharply increased in 2016 and dropped again in 2017. Trends in terms of gender indicate that more males than females enrolled for doctorate programmes during the period of study (2003-2017). During the interviews, respondents were asked why they chose to study at this university. Most of them indicated that it

was the oldest and thus assumed to have the best and most experienced faculty in their area of study. A male doctorate student observed the following during the interview;

Before I enrolled for my doctorate programme, I did due diligence on the availability of the faculty in my area of study. Indeed, I found out that the university was well endowed with the academic staff in my area. I therefore made a decision to enrol here. [A male doctorate student at University A (RS/11/DG/FASS/UA, June 2020)]

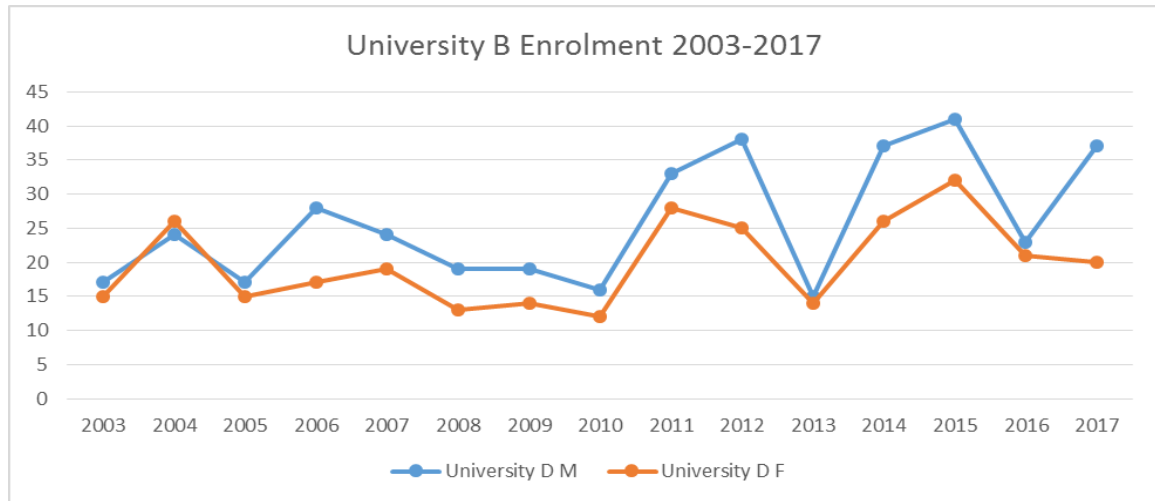
Female doctorate students' respondents stated that;

I live and work in the vicinity where the university is located. I therefore opted to enrol for a doctorate programme because of the convenience in terms of logistics. Furthermore, this made it flexible to enrol for an evening programme. [A female doctorate student -the University A (RS/25/DH/FASS/UA)]

I did not want my employer to know that I wanted to further my studies. My immediate boss feels threatened by the mere fact that one has just thought of furthering the studies. I therefore secretly thought and enrolled incognito. This university was therefore the most appropriate as the employer will never notice when I do my studies. I was enrolled for evening and weekend programme. A female doctorate student at University A (RS/19/DBE/FASS/UA)

4.6.3 Doctorate Programme Enrolment Trend –University B

Trends in doctorate programme enrolments at University B during the period of study was determined and presented in Figure 4.3

Figure 4.3: Trends in Doctorate Enrolment at University B 2003-2017

Sources: Fieldwork Analysis (2019)

Trends in doctorate programme enrolment in the sampled schools of University B between 2003 and 2017 indicate a steady growth. There was a sustained enrolment between 2004 and 2013. Trends of enrolment in terms of gender, indicates that the males were more than females enrolled during the study period. The year 2015 recorded the lowest enrolment in terms of females into the doctorate programmes. Between 2014 and 2016, there was a sharp increase in enrolment in the schools sampled for male doctorate candidates. This trend declined from 2016 to 2017. The study revealed that there were varied reasons why the steady growth was experienced. One former dean of the school in the university observed that;

As the dean of the school, I marshaled my departmental heads for doctorate programme recruitment drive. We used most of our graduates to reach out to potential students. Indeed this bore fruits as we saw increase in new enrolments in the departments within the school. We even saw the increase in foreign students in our doctorate programmes A lecturer - University B (RL/6/SoE/UB)

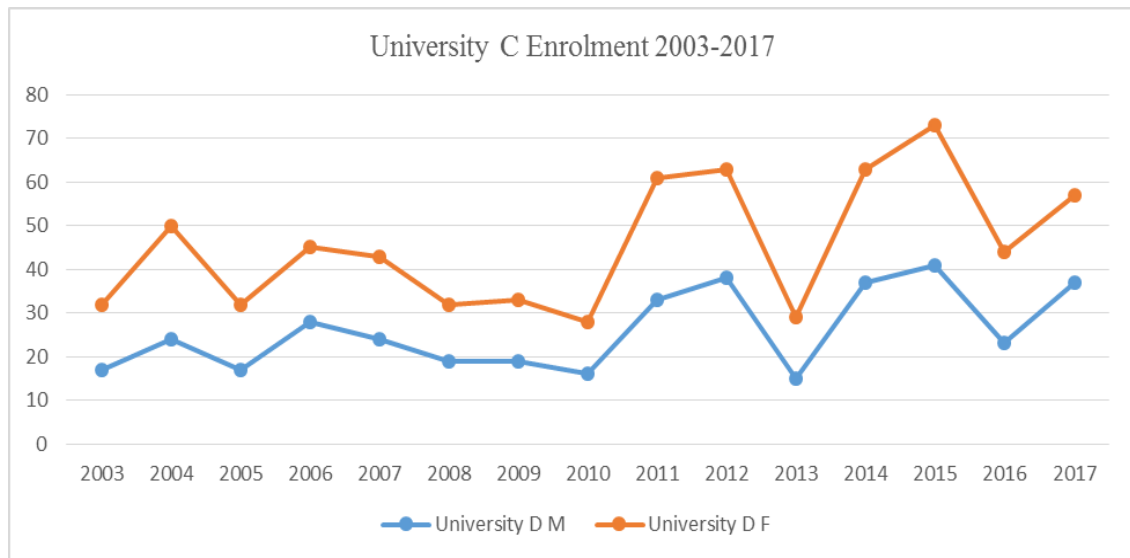
A male faculty member who was formerly a departmental head observed that;

The government policy on who could be a lecturer influenced the steady growth. The government had proposed through a policy that only individuals with doctorate degrees would be allowed to lecture at the university. My university then enhanced the programme of employing tutorial fellows with the intention of beefing up the doctorate programmes A lecturer - University A (RL/9/DG/FASS/UB)

4.6.4 Doctorate Programme Enrolment Trend –University C

Trends in doctorate programme enrolments at University C during the period of study was determined and presented in Figure 4.4

Figure 4.4 Trends in Doctorate Enrolment at University C (2003-2017)



Sources: Fieldwork Analysis (2019)

Figure 4.4 demonstrates trends in doctorate programme enrolment at University C between 2003 and 2017. The result in trends indicates that enrolment into doctorate programmes has been fluctuating over the period under review. There was increase in enrolment for male candidate in the year 2004 which went down up to 2006 and started again to rise until 2010 when it again fell. Between 2010 and 2012 the enrolment rose. However, in 2013 it fell again and from then it started rising up to 2017. Female

candidates registering for doctorate programmes at University C has also presented a different view. The trends indicate that enrolment fell in 2004 and increased from 2004 to highest being in 2017. However, between 2004 and 2008, the enrolment improved which again declined in 2010. It steadily rose again from then to 2015 when the enrolment slightly fell and grew from then. In terms of gender, more males than females enrolled for doctorate programmes in the period under review. Doctorate programme growth realised in the university was attributed to opening of a number of campuses countrywide during the period of review. Faculty members who were former deans and departmental heads observed the following;

When the university entered into an expansion programme, more campuses were opened thus taking education next-door. This saw a number of people enrolling for the doctorate programmes increasing. Most of them were teachers who could not leave their work stations. A lecturer University C (RL/13/DPHY/SPAS/UC)

Another academic member of staff in the university who was a former chair of the department supported this by noting the following;

When I took over as a departmental head, I had to change the landscape of doctorate enrolment within my department. I encouraged my staff members to bring on board more doctorate students to boost their supervision track. This was a prerequisite to promotion to the next cadre in the career path. Many grabbed the opportunity and encouraged new enrolments- A lecturer – A university (RL/12/DH/SASS/UC)

A female doctorate student in the university observed that;

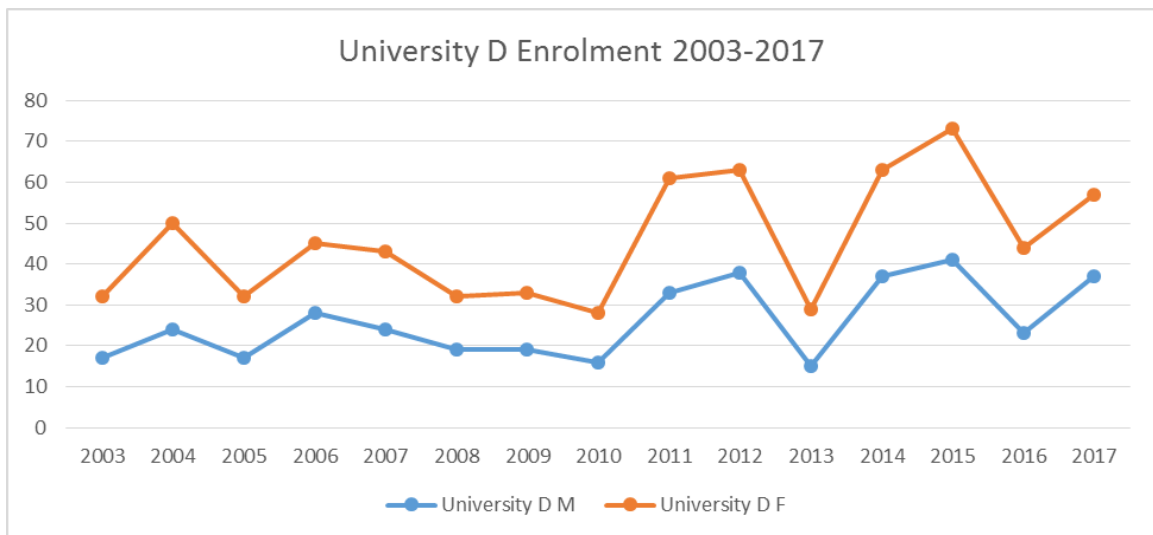
I felt very encouraged to enrol for a doctorate programme when the university opened a campus near my home. The issues to do with traveling became a thing of the past. I progressed well until the ministry of education compelled universities to close campuses. Yes, am safe now since I

am almost through with the programme. I even saw my fellow teachers enrol for other programmes in the university with opening of the campus- A female doctorate student the University C (RS/16/DCS/FE/UE)

4.6.5 Doctorate Programme Enrolment Trend –University D

Trends in doctorate programme enrolments at University D during the period of study was determined and presented in Figure 4.6.

Figure 4.5 Trends in Doctorate Enrolment at University D (2003-2017)



Sources: Fieldwork Analysis (2019)

Results from Figure 4.5 indicate that enrolment into doctorate programmes at University D has over time improved. However, this has happened at a very slow rate. Between 2003 and 2010 the growth trends were slow. However, from 2011 to 2017, there was a slight improvement in enrolment with 2013 recording the lowest number of those who were enrolled. Trends in terms of gender enrolment indicate that more males than females enrolled for the doctorate programmes for the period under study other than 2004 when more females than males enrolled for doctorate programmes. The

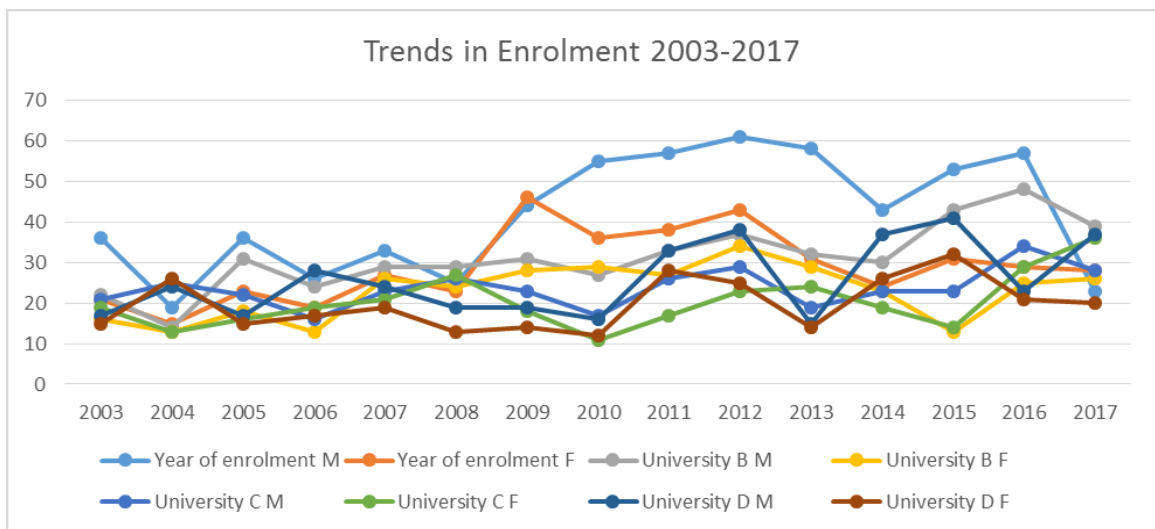
respondents from the university observed that however slow the growth has been, their doctorate programme were registering positive tremendous changes. Lecturers' respondents reported that some of their programmes were unique and were well known for that. A lecturer observed that;

This university was established on unique programmes in agriculture. Most doctorate students we receive are usually referred to us by those who have already graduated. We also have existing partnerships with institutions engaged in research in most of the doctorate programmes we offer. They are comfortable in channeling their sponsorship through us. A female doctorate student at University A (RL/8/DCS/FA/UD).

4.6.6 Trends in Gender Enrolment (2003-2017)

Trends in gender enrolment in from the sampled universities were established and presented in figure 4.6.

Figure 4.6 Gender Trends in Doctorate Programme Enrolment (2003-2017)



Sources: Fieldwork Analysis (2019)

Figure 4.6 indicates gender trends in doctorate programmes' enrolment in all universities that were studied (University A, University B, University C and University D). The trends indicate mixed enrolment characteristics in terms of gender. However, it is evident that between 2003 and 2008, these universities had experienced stagnated trends in gender enrolment into doctorate programmes. University A and University B progressively on average indicated upward trends in both gender enrolments for various doctorate programmes. University C and University D on the other hand recorded mixed trends in enrolment. A closer examination of enrolment in terms of gender enrolment trends indicate that more males than females enrolled for doctorate programmes in all the universities under review for that period. Progressive trends in enrolment were attributed to the Kenyan government policy through the Commission of University Education (CUE) requirement that only those with doctorate degree qualifications would be allowed to teach at the universities by the year 2018. This meant that more students enrolled in order not to be locked out from teaching at the universities.

4.6.7 Trends in Doctorate Completion Rates

The various doctorate degree programme completion figures were also established. This was determined through working out the cumulative number of candidates graduating with a doctorate degree over the number of candidates enrolled in a cohort. The enrolment cohort was taken to be the year students were registered for the doctorate programme. It was established that enrolment into a doctorate programme in most universities is offered when the potential candidate successfully passes initial

examinations. These initial examinations were either oral or written and in some case both. Oral examination involves the doctorate student defending his or her research proposal at the department and the school respectively. The doctorate degree programme completion date was taken as the graduation date which was contained in selected public universities graduation days (obtained from graduation booklets). These doctorate completion data per university were obtained, collated and compiled then presented in Table 4.9.

Table 4.9 Trends In Doctorate Programme Completion Statistics

Year	University										
	UA		UB		UC		UD		TOTALS		
	M	F	M	F	M	F	M	F	M	F	M&F
2003	-	-	21	8	6	1	3	1	30	10	40
2004	25	7	17	9	5	2	4	1	59	18	77
2005	8	5	12	4	5	0	3	0	28	9	37
2006	20	3	6	2	4	0	5	1	35	6	41
2007	8	5	17	18	-	-	6	3	29	26	55
2008	11	4	20	16	11	3	5	6	47	29	76
2009	27	11	30	23	-	-	5	2	62	36	98
2010	30	9	22	17	18	6	7	6	77	38	115
2011	29	6	25	9	14	7	6	3	74	25	99
2012	13	9	18	8	2	1	3	3	36	21	57
2013	17	3	24	13	8	0	4	2	53	18	71
2014	45	12	59	46	7	7	6	3	117	68	185
2015	28	17	74	33	12	3	5	4	119	54	173
2016	76	30	49	40	10	5	5	3	140	78	218
2017	33	16	30	39	0	2	4	1	70	58	128
Totals	370	137	424	285	102	37	71	39	976	494	1470

(Sources: Universities' Graduation Booklets-2003-2017)

Table 4.9 gives the total number of doctorate programme candidates who graduated with a doctorate degree between 2003 and 2017. A total of 1,470 doctorate candidates accounting for 45.67% of total enrolment completed their doctorate studies within the

same period under consideration. Further analysis established that 976 males and 494 females which translate to 66.39% males and 33.61% females earned their doctorate degrees. The analysis indicates that more males than females earned their doctorate degrees during the period under review.

A follow up question with lecturers and administrators indicates that;

Some individuals enroll for doctorate programmes as an additional honour to their C.Vs, yet they have no objective of completing their studies any time soon, this is mostly for those who are from Arts, those from Sciences strive to complete.... Perhaps some are consultants so it sounds good to add doctorate degree- Ongoing as part of their academic qualification- A female doctorate student at University A (RL/31/DBE/FASS/UA)

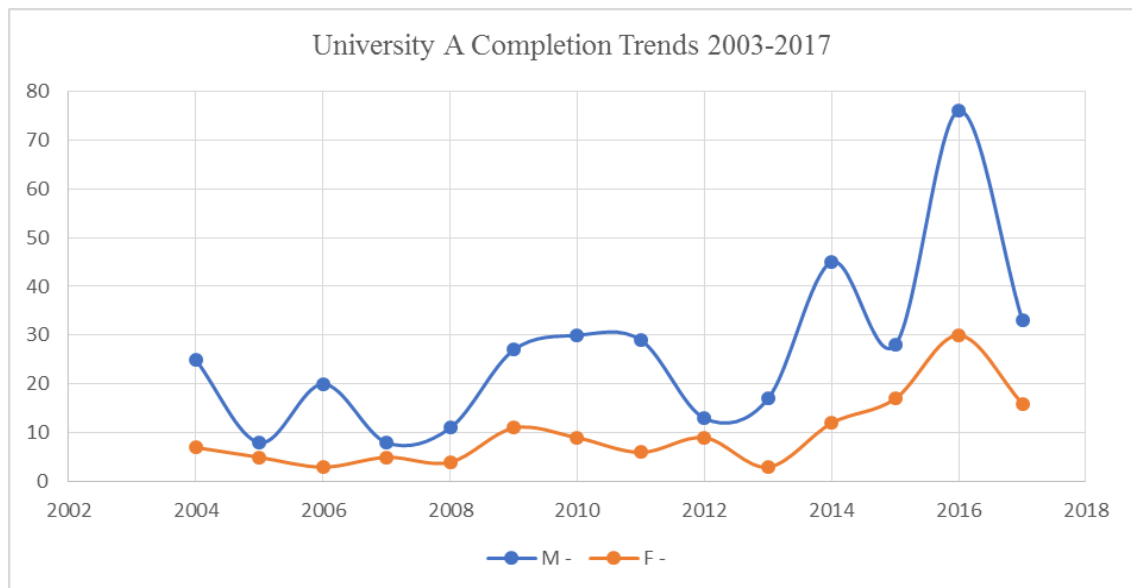
This was further indicated by one female student who indicated that:

As a career woman, it wasn't easy to complete my doctorate programme studies, so much was expected of me from both my family and at my place of work...the society is not kind to a woman...I was asked severally to drop the studies and concentrate on my career and family...I thank my husband who was understanding and empathized with me. Many other women who wish to pursue their individual doctorate studies but are tied by many other responsibilities and most importantly cultural setback....for your information it took me five and a half years to clear my studies and I almost gave up." A female doctorate student at University A (RS/15/DBE/FASS/UA)

This is in line with the challenges experienced by doctorate programme students which have been reported in other studies. Thomas et al. (2017) in a study found that all the participants were working adults who also had other responsibilities, for example family (which included immediate and extended family members) and workplace commitments. This is further reinforced by Maasdorp and Holtzhausen (2011) in their study found out that the challenge of workload experienced by the doctorate students are enormous. They continued to observe that doctorate students are faced with

significant complications when beginning their studies related to the worry about expectations, the break from study they have had and because of time at the workplace; an imbalance regarding their studies, employment and family responsibilities. These experiences are supported by Essa (2011) who expounded that harmonizing of academic, work and family duties is a challenge for postgraduate candidates who may be in active employment and have families of their own. Benshoff et al. (2015) added that satisfying numerous roles, duties and expectations is a common feature of postgraduate studies. Trends in doctorate completion was analysed and presented in Figure 4.7

Figure 4.7 Trends in Doctorate Completion at the University A (2003-2017)



Sources: Fieldwork Analysis (2019)

Figure 4.7 shows trends in doctorate completion at the University A for the period of study (2003-2017). The researcher took into consideration that those graduating between 2003 and 2005 could be from previous cohorts; however for the purpose of

generalization the researcher opted to use same period data for enrollment and completion of doctorate studies. Further, due to time limitation and manual storage of records at University A, the researcher was not able to access graduation data for the year 2003. This trend indicates that between 2004 and 2008, there was dismal performance in number of those graduating with doctorate degrees in the selected schools. Between 2008 and 2011, the situation improved. However, in 2012, it again dropped with sharp rise in the numbers from the year 2013. This could be interpreted to mean that those who joined from 2009 were now graduating. In terms of gender, there were more males than females who graduated from University A in the selected schools during the period under study 2003-2017 with exception of 2003 where the data was not available. A dean of the school and a director at the Board of Postgraduate reported the following during an interview;

As a dean of the school, I am totally unhappy with the number of doctorate degrees we have graduated to this end. We are making more efforts to streamline doctorate education within our school with the help of graduate board. I could be very happy when we graduate more and contribute to the pool of national human resource grid of individuals with doctorates. The government is looking at us and we will usually give the best” A dean of the Faculty - University A (RL/1/ FASS/UA)

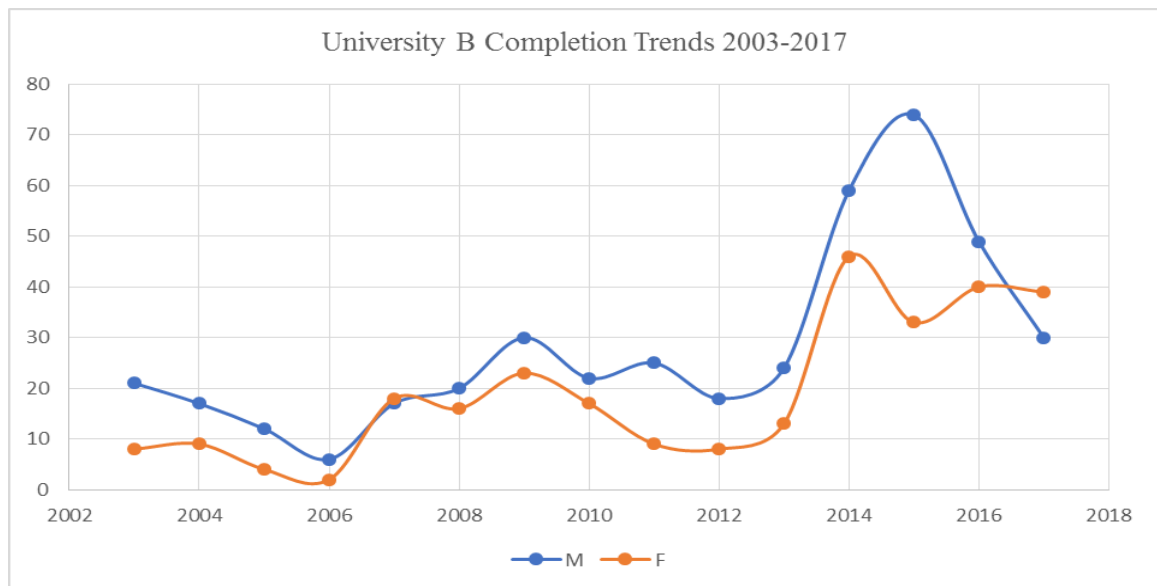
This was reinforced by sentiments by a director of Board of Postgraduate studies who stated that;

As the director of the Board, the completion picture is not pleasing at all. We are expected to be the best in doctorate completion. I am aware that yes, issues to do with policies are there but as a board, we have reviewed them and they are waiting for the due process. I don't want to preempt of what we are planning over doctorate program training as a university but for sure....., watch this space for changes.” A director of graduate board- University A (RS/1/DBPGS/UA)

A doctorate student from the university supported the findings in response from the administrators and observed the following;

I am more worried when I see that those I met already enrolled for doctorate programmes are not graduating. My fear is even worsened when I realise that they have gone beyond the time provided in the doctorate programme policies. I wish the university could do more to ensure that the timelines are met not only by the doctorate students but also by the university supervisors and administration in ensuring that there is timely completion.” A doctorate student at University A (RS/14/DG/FASS/UA)

Figure 4.8 Trends in Doctorate Completion at University B (2003-2017)



Sources: Fieldwork Analysis (2019)

Figure 4.8 indicates trends in doctorate completion for both male and female at University B during the period of study (2003-2017). The trends indicate that doctorate completion had improved over time in the schools studied under the period of study. There was a decline in completion between 2003 and 2004 which then sharply rose from 2006 to 2010 when the completion declined and stagnated up to 2012. Again,

2013 all through to 2016, the completion sharply rose again. In terms of gender, more males than females graduated from the university with doctorate degrees in the schools that were studied during 2003-2017 other than 2007 when there were more females than males who graduated with doctorate degrees. This was attributed to the policy of fast-tracking those enrolled for various doctorate programmes and establishing the Graduate School at the university. The respondents reported the following during the interview;

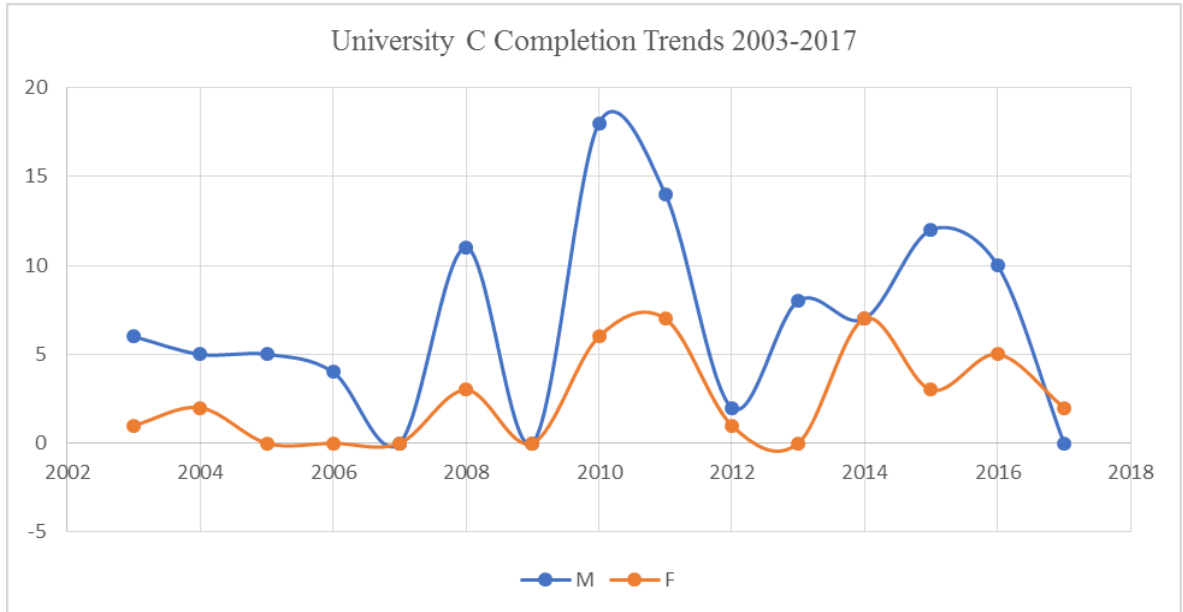
I am glad that the graduate school was established to coordinate all matters to do with postgraduate students. I am particularly interested with the coordination which will improve the graduation or more, more more and more doctorates. Since its inception, the school has seen the revision of postgraduate rules governing doctorate programmes. There is improved number of those enrolling for doctorate programmes and we are fast-tracking those who need to graduate. We hold regular meetings with doctorate students to find out what is constraining them and how we can improve. This is coupled with organising doctorate seminars to expose them to research aspects.” A member of the graduate school- University B (RM/1/GS/UB)

This was supported by a dean of a school who observed that;

During my tenure as a dean, I have seen much effort being put in place by the graduate school. The energies have been directed more especially to doctorate students. That cooperation between my school and the graduate school has seen the number of those graduating increasing steadily.” A dean of the school - University B (RD/1/SHSS/UB)

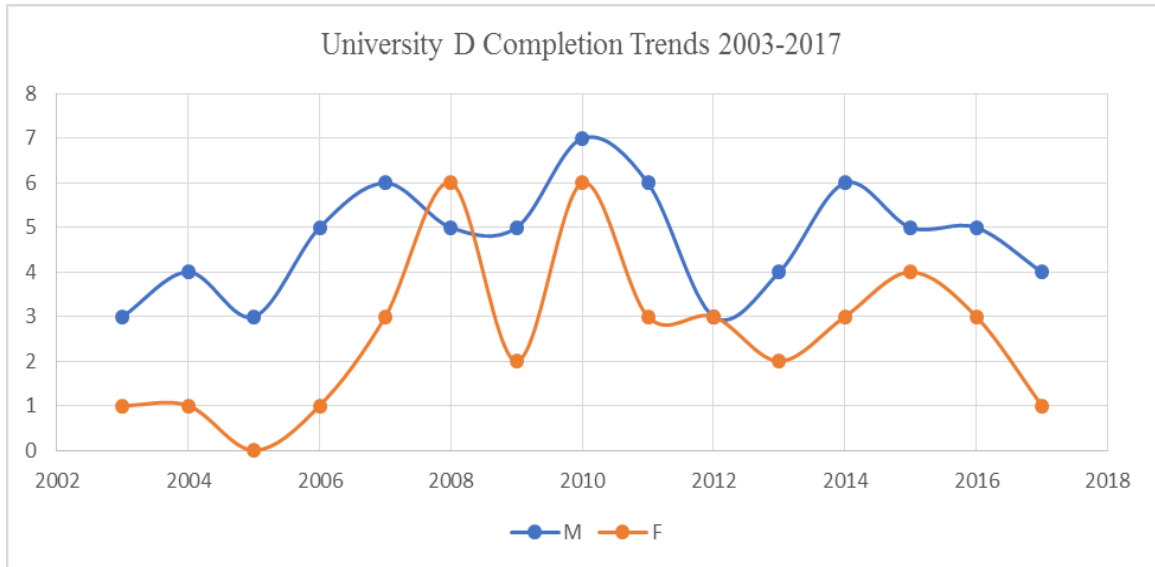
A doctorate student observed that;

With the regular meeting between my supervisor and I, I have made tremendous progress towards realisation of my doctorate. The tracking forms which must be forwarded to the graduate school has acted as a check for both my department and school besides my supervisors. I hope to complete my studies the soonest.” A doctorate student the University B (RS/33/DLL/UA)

Figure 4.9: Trends in Doctorate Completion Rates at University C (2003-2017)

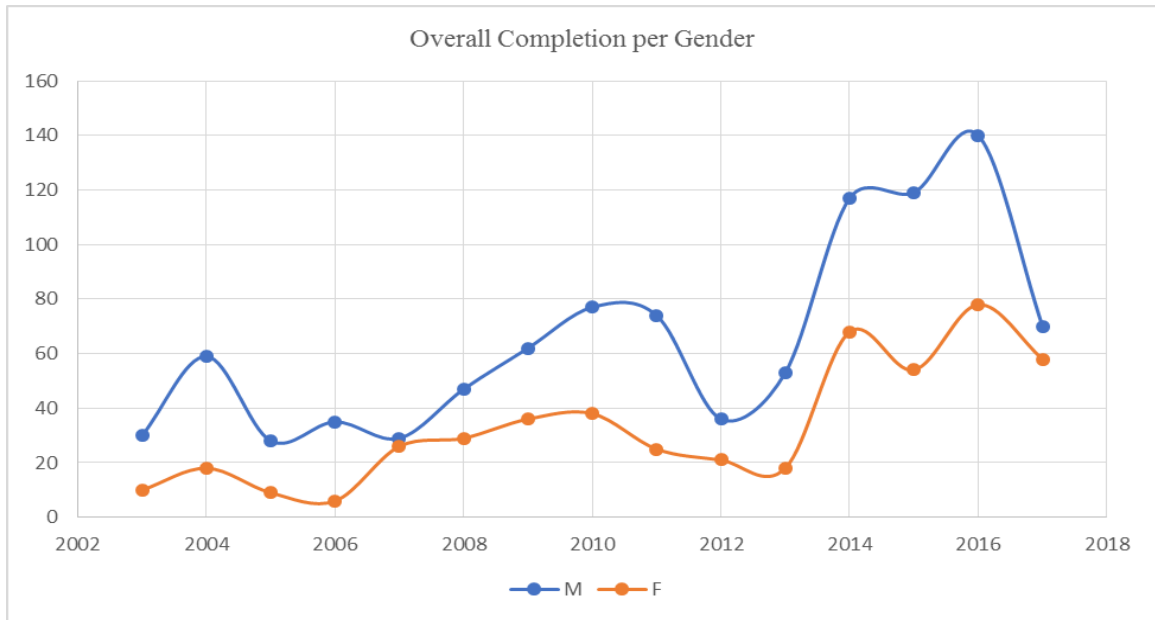
Sources: Fieldwork Analysis, 2019

Figure 4.9 presents the completion trends of University C during the period of study (2003-2017). The trends indicate a sharp contrast between male and female number of candidates awarded doctorate degrees during the period of study. More males than females were awarded doctorate degrees. It is worth noting that from 2003 to 2006 there was a downward trend in the number of those who received a doctorate degree. Between 2007 and 2008, the numbers rose and then declined in 2009. From 2010 to 2011, the numbers increase and then fell again in 2012. The numbers then increased significantly in 2013 to 2016 and fell again in 2017. The interpretation of this data means that doctorate completion has not been uniform during the period of study for the University. More males than females were awarded doctorate degrees. The increase in those who received doctorate degree was attributed to the government policy of those who are supposed to teach at the university to possess doctorate degrees themselves.

Figure 4.10 Trends in Doctorate Completion at University D (2003-2017)

Sources: Fieldwork Analysis (2019)

Figure 4.10 presents trends of those who were awarded doctorate degrees from University D between 2003 and 2017. The trends demonstrate an increase in the number of those awarded degree over the period of study. However, more males than females were awarded doctorate degrees. The trends indicate that between 2003 and 2007, there was a steady increase of those who were awarded doctorate degrees. However, the trend became unstable in the subsequent years with the year 2012 recording the lowest number of those who were awarded with the doctorate degrees from the University. From 2013 to 2016, the number increased and then declined in the year 2017. This data would be interpreted to mean that doctorate completion trends indicate increase in the number of those graduating with doctorate degree. However, gender disparity is glaring in the data with more males than females graduating with doctorate degrees from the University during the period of study.

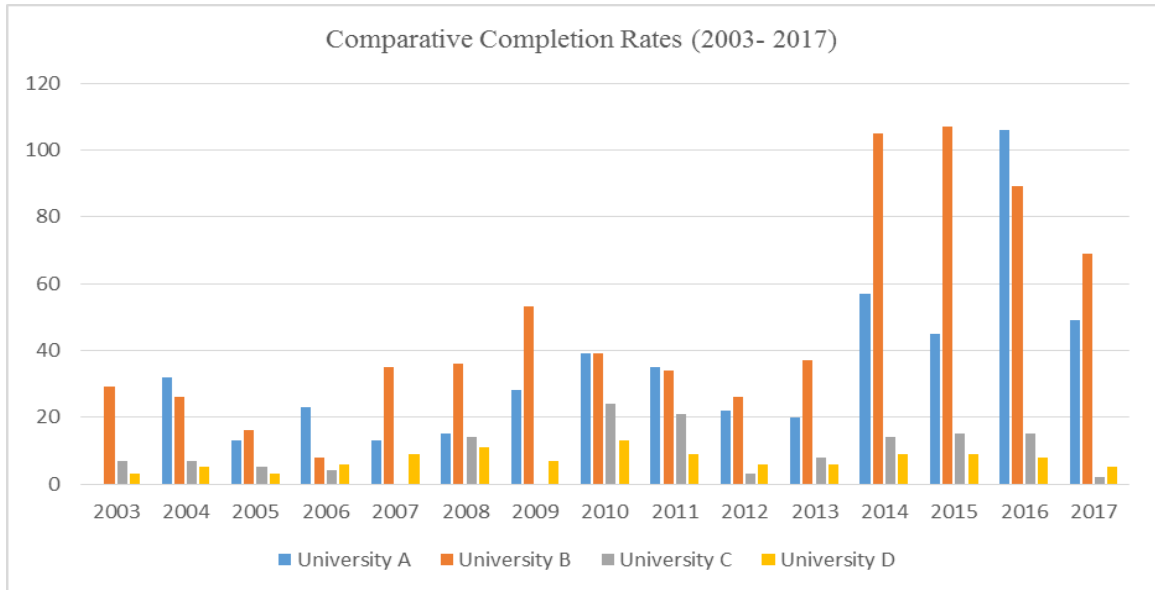
Figure 4.11 Gender Completion Trends for 2003-2017

Sources: Fieldwork Analysis (2019)

Figure 4.11 indicates trends in doctorate completion per gender covering the period of study. The trends indicate that more males than females were able to earn their doctorate degrees from the four universities in the period of 2003-2017. The trends indicate that from the four universities, there was an increase in those who earned their doctorate between 2003 and 2004. In 2005 the number went down. This however changed and from 2006 to 2008 more males earned their doctorate degrees. In the year 2009, the number stagnated and the situation changed in the year 2010 which saw the highest number of males earning their doctorate degrees from the four universities cumulatively. The number went down, rising again in the year 2012 and started falling in the year 2015. The trends in the number of females who earned their doctorate degrees between 2003 and 2008 progressively increased with the year 2008 more

females than males earning their doctorate degree. This number kept changing with data from 2009 indicating the trends sharply declining.

Figure 4.12: Comparative Trends in Doctorate Completion 2003-2017(University A, B, C and D)



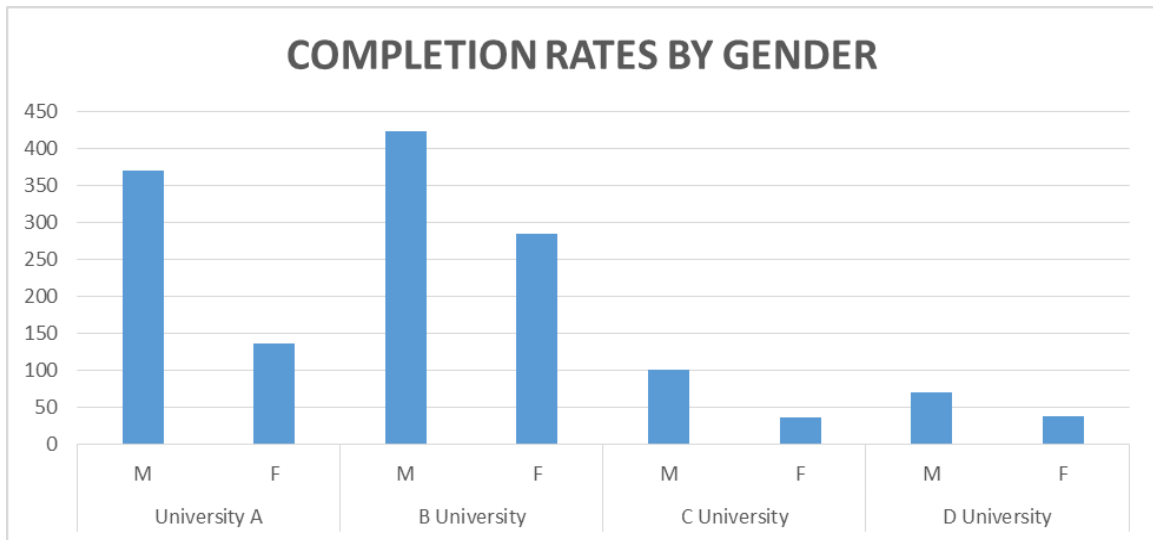
Sources: Fieldwork Analysis (2019)

Figure 4.12 above indicates aggregated comparative trends in doctorate degree completion from the four public universities studied. The trend analysis indicates that the University A and University B graduated the highest number of doctorates during the period of study. The trends further demonstrated that there was progressive improvement in terms of the doctorate degrees awarded by the four universities reviewed during the period of 2003-2017. The highest number of those who earned their doctorate degrees is demonstrated from 2013 to 2016 in all the four universities. In the year 2017, the number reduced significantly. The interpretation was that majority of

those enrolled for the various doctorate programmes were still writing their thesis. This was supported by a male doctorate student from University A, who observed that;

I started writing my thesis last year and hope to meet the requirements by the end of this year. However, I note with a lot of concern that the progress is slow than I thought. There are several corrections suggested and sometimes I feel they are too much. I am a family man and besides I am working to earn a living. All these issues combined, I believe are the ones slowing the whole process.” A male doctorate student the University D (RS/11/DPSY/FECD/UD)

Figure 4.13 Aggregated Completion Data by Gender



Sources: Fieldwork Analysis (2019)

Figure 4.13 indicates aggregated trends in doctorate degree completion in terms of gender from the four public universities studied. The trends analysis indicates that more males than females earned their doctorate degrees between 2003 and 2017. The analysis indicates that University A and University B had the highest graduates with doctorate degrees. By gender graduation trends, the analysis indicates that more males were

awarded doctorate degree than females in all the four universities. However, University A led followed by University B while University C and D followed in that order.

Table 4.10 Doctorate Completion Rates (2003-2017)

Year	Male enrolled	Male completed	% of completion	Female enrolled	Female completed	%of completion	Total Enrolled	Total completed	% completion
2003	96	30	31.25	71	10	14.29	167	40	23.95
2004	82	59	71.95	67	18	26.87	149	77	51.68
2005	106	28	26.42	72	9	12.50	178	37	20.79
2006	94	35	37.23	68	6	8.82	162	41	25.31
2007	109	29	26.61	93	26	27.96	202	55	27.23
2008	99	47	47.48	87	29	33.33	186	76	40.86
2009	117	62	52.99	106	36	33.96	223	98	43.95
2010	115	77	66.96	88	38	43.18	203	115	56.65
2011	149	74	49.66	110	25	22.73	259	99	38.22
2012	165	36	21.82	125	21	16.80	290	57	19.66
2013	124	53	42.74	98	18	18.37	222	71	31.98
2014	133	117	87.97	92	68	73.91	225	185	82.22
2015	160	119	74.38	90	54	60.00	250	173	69.20
2016	162	140	86.42	104	78	75.00	266	218	81.95
2017	127	70	55.19	110	58	52.73	237	128	54.01
Totals	1,838	976	53.10	1,381	494	35.77	3,219	1,470	45.67

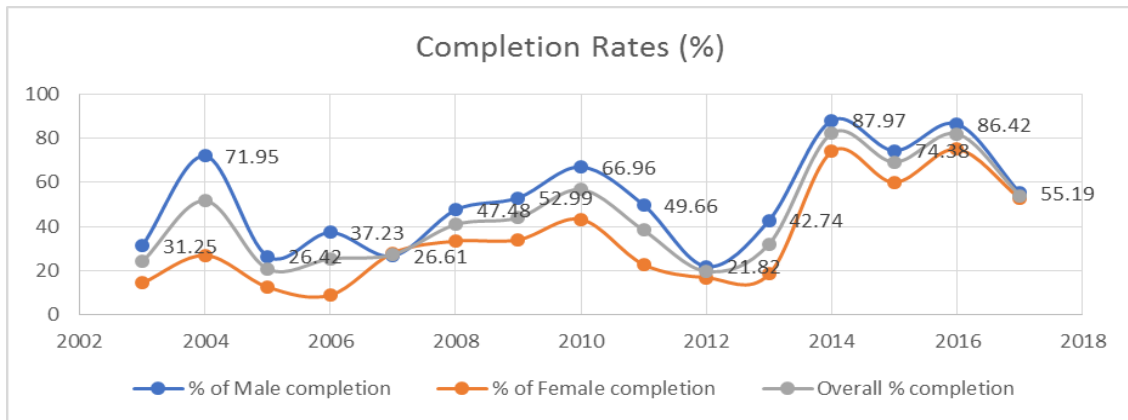
Sources: Researcher's Analysis (2019)

Table 4.10 indicates the number of doctorate candidates who were awarded doctorate degrees versus the enrolment of each year. On one hand for instance, while there were 96 male candidates enrolled for various doctorate degree programmes in 2003 only 30 of them were awarded doctorate degrees representing 31.25%. On the other hand, the female candidates enrolled during the same period of study being 71, only 10 of them earned their doctorate degree representing 14.29% completion rate. The analysis further indicates that out of the total 3, 219 doctorate candidates who enrolled for various doctorate programmes in the four universities studied between the period of 2003 and 2017 a total of 1,470 earned their doctorate degrees. This represents 45.67% completion rates during this period. The number of those who earned their doctorate degrees was reducing from 2015. This was interpreted to mean that majority of doctorate candidates

at this level are still writing their final thesis having completed their course work requirements by universities and or defended their proposals at various levels as required by the universities.

The average completion rate during the period of study was 44.51%. This is below the expected average of 50.00% or more. This could be interpreted to mean that the rate at which enrolled candidates into doctorate programmes earned their doctorate degree is wanting in Kenya. On average, completion rates between 2003 and 2014, a period of eleven (11 years) was 37.32% for males and 20.33% for females. The analysis indicates that completion rates were not uniform. They kept fluctuating year by year. During the same period, the highest completion rate was recorded in the year 2014 at 82.22%. This data was graphically represented in Figure 4.14

Figure 4.14: Trends on Doctorate Completion Rates



Sources: Fieldwork Analysis (2019)

Figure 4.14 indicates completion rates trends from the four universities (University A, University B, University C and University D) for the period under review. The plotted figure used the enrolment and completion statistics to arrive at the completion rates.

More males than females enrolled for doctorate programmes for the period under study. In terms of completion, more males than females completed and were awarded doctorate degrees during this period of study. The completion rates rotated between 23.95% and 45.22% with the highest completion rates being in the year 2014. However, from 2014, the completion rates increased. This was interpreted to mean that more efforts were being directed to doctorate education in Kenya especially with the requirements by CUE that only individuals with doctorate degrees could be allowed to teach at the universities.

4.7 Institutional Doctorate Programmes procedures, Enrolment and Completion Rates in Selected Public Universities in Kenya

The second objective of the study sought to obtain information on institutional practices touching on doctorate programme procedures and how they influence enrolment and completion rates of doctorate programmes from Kenyan public universities. The admission process, doctorate programme type and structure, mentoring programmes, availability of qualified academic staff, tuition policies, student progress and personal interests were to be established. This was based on the Likert Scale provided through the questionnaire appendices I and II Scale 4= Strongly Agree (SA), 3=Agree, 2=Disagree (D) and 1= Strongly Disagree (SD). This is presented in tables 4.11 and 4.12.

Table 4.11 presents the doctorate students' responses on the individual university's organizational practices with regards to doctorate programmes. Eight items were presented and the respondents (doctorate programme students) were to respond on each item. Doctorate students were asked to comment on the recruitment process by

universities. 206 doctorate programme students representing 41.04% of the respondents strongly agreed while 143 respondents representing 28.48% agreed with the statement. On the other hand, 77 respondents strongly disagreed with 76 of them disagreeing representing 15.34% and 15.14 respectively. This indicated that universities were involved in doctorate programme marketing through various modes.

Table 4.11 Doctorate students' responses on institutional doctorate programme practices

S/N	Item	Strongly Agree		Agree		Disagree		Strongly Disagree	
		N	%	N	%	N	%	N	%
1	Universities engage on a rigorous doctorate student recruitment process.	206	41.04	143	28.48	76	15.14	77	15.34
2	The length of admission into doctorate programmes is long	211	42.03	176	35.06	69	13.75	46	9.16
3	The role of graduate school is wanting	123	24.50	134	26.69	93	18.53	152	30.28
4	Does the university have adequate staff to supervise doctorate students?	103	20.52	96	19.12	94	18.73	209	41.63
5	Is the department satisfied with current doctorate enrolment and completion rate?	96	19.12	89	17.73	97	19.32	220	43.83
6	Doctorate programme policies need to be revised.	201	40.04	166	33.07	84	16.73	51	10.16
7	Doctorate students mentoring process is satisfactory?	114	22.71	107	21.31	127	25.30	154	30.68
8	Does the mode of study affect your doctorate programme	94	18.73	91	18.13	101	20.12	216	43.02

Sources: Fieldwork Analysis (2019)

During the interview, this came out clearly when respondents were asked how they got to enroll in their universities. They named marketing and referrals by those already graduated from those universities as their source of information for enrolment. They however, noted that most universities do not disclose all details regarding a doctorate

programme until one has fully enrolled. Furthermore, they observed that most universities' websites are not adequately furnished with details such that whenever students access them, they will get a 'one-stop shop' for the same. A male doctorate candidate from University C observed that;

When I made up my mind to enrol for a doctorate programme, my first stop was the university website. I was shocked to only get scanty information regarding the programme I really wanted. This prompted me to call the office number which was provided, but still was non-functional. I was forced to visit the university in person where much of the information was availed by a secretary at the department" A male doctorate candidate from University C (MRS/19/FED/CU)

When asked to comment on the length of the admission process into a doctorate programme, majority 211 respondents representing 42.03% strongly agreed while 176 respondents representing 35.06% agreed that for one to be admitted into a doctorate programme it took long. The doctorate students observed that from the time one makes an application to be admitted into a doctorate programme to actual admission is actually long. A doctorate student who is a tutorial fellow observed that proper document screening is usually done to avoid admitting individuals who are not qualified. In cases where one is applying for a doctorate programme in a university different from the one where the master programme was undertaken, then they have to write to that university for confirmation. This is part of what was observed to be lengthening the process. Some universities need to be sure of the student quorum before admission. In other cases, the candidate needs to write a concept paper, assigned supervisors then proceed with a proposal writing process. When the candidate successfully defends the proposal at the

department or the school level, then formal admission takes place. All these were seen by the students to have contributed to such lengthy of time.

On the administrative role of the Graduate Schools (Board of Postgraduate Schools), doctorate students were convinced that they were not adequately discharging their duties at 30.28% of the respondents. During the interviews, doctorate students confirmed that they rarely meet with officials from the graduate school. A female student from the University A observed that;

The role of board of postgraduate school is on paper but in practice, I have never felt them. She is only felt during document signing or organising some seminar. I expect them to come in handy to sort out challenges I face as a graduate programme student. Many a times, I see things go wrong and nobody to turn to. Arrogance projected to doctorate students by supervisors... oh no.' A female student from the University A (RS/13/ED/AU)

When asked to rate whether there were sufficient staff to supervise doctorate students, they rated their dissatisfaction at 41.63%. They observed that lecturers who qualify to supervise doctorate students are really overworked. They were involved in teaching the undergraduate students' populace and hold administrative duties such as heads of departments, postgraduate leaders at the department and deans of schools among others. All these impacted on their doctorate supervision responsibilities. They noted that due to this complex state of events they find themselves in, it took long for supervisors to read and respond to the students' work. The study thus established from the respondents that academic staff who supervise doctorate candidates are overwhelmed with duties beyond just doctorate supervision. As one female doctorate student noted during the interviews:

I had to change my supervisor along the way, the one I had seemed overwhelmed and the progress was too slow especially to review my proposal and giving a feedback...I suspect the other duties that he had and his personal interest were working against my graduation timelines” a female doctorate candidate – University B (RS/06/PBS/SPAS/BU)

This was supported by another male doctorate student from University D by stating that:

My supervisors never seem to agree on anything. I am always found on the middle ground. Sometimes I lock myself in my small room and shed tears. The struggle between the supervisors never seem to have an end in sight. I am totally devastated” a male doctorate candidate at University D (RS/19/LL/SHSS/DU)

The statement was further supported by another female doctorate student from A University who observed the challenges of being assigned by more than one doctorate supervisor.

Sometimes it is burdensome that you have two supervisors but only one is giving the necessary guidance the other one is only after publications which are for their benefit and not mine as a scholar” a female doctorate candidate- at University B ((RS/26/PBS/SPAS/UA)

Another male doctorate student expressed how his relationship with the supervisor was for long time;

One of my supervisors trashes all the corrections I do and never provide a roadmap that I should follow. This has always demoralized my other supervisor who is almost giving up. I tried requesting for a common meeting for both of them which has never materialized as they seem to be pulling to different directions. It is like am lost in the forest with no apparent route

*to follow. I have left it all to God'' a male doctorate candidate
at University D (RS/22/DG/SHSS/DU)*

The above findings regarding supervision are supported by Van Schoot (2013) in a study at Netherlands Universities on what delays doctorate programme completion. The study identified the supervision process as a greatest impediment to doctorate supervision completion. Furthermore, in a study by Waruru (2019) and published in 'University World News' established that the doctorate supervision process had inherent obstacles. These obstacles were mostly posed by the supervisors. This is because they saw the doctorate candidates as potential competitors in their field. The findings further reported that award of a doctorate degree was perceived as a social club with rules that candidates must fulfil before they join explaining the obstacles.

Doctorate students were furthermore dissatisfied with current enrolment into doctorate programmes at 43.83% who strongly disagreed. They argued that universities needed to put more effort to attract and retain doctorate candidates in various programmes. This is in agreement with CUE (2016) study titled 'Status of Post-Graduate Research and Training in Kenya' which underscored on the need to break the barriers which have hindered doctorate programme enrolment and completion from Kenyan universities. The doctorate students strongly agreed at 40.04% that doctorate programme policies need to be revised to reflect the current needs in the universities. They noted more on the curriculum revision as a key component to stimulate doctorate programme enrolment and completion. Respondents confirmed that mentoring processes existed in the schools and departments however it was not satisfactory. 30.68% of the respondents

strongly disagreed on the satisfactoriness of the mentoring process. This finding is in agreement with Hund, Churchill, Faist, Havrilla, Love Stowell, McCreery and Scordato (2018) who established in a study carried out at Australian and American universities that mentorship in doctorate programme is crucial. They established that ineffective mentoring can adversely impact students, faculty, departments, and institutions through declined productivity, increased stress, and the loss of cherished talented personnel as well as research products. They therefore recommended institutional investments on incentives and formal training to enhance mentorship especially in STEM subjects. Ghani et al. (2012), underscore the role of the supervisor as that of a coach, a mentor and a guide. That the supervisor controls the quality of the thesis and on the other hand, the doctorate student has a duty to ensure proper fundamental management of the thesis or dissertation. A study by Linde (2012) stresses that from the word go, a postgraduate student and his/her supervisors should work together as partners in scholarship and each one should strive to maintain the partnership.

The doctorate students were asked to respond to the item that the mode of study they were enrolled in influenced their completion of the doctorate programme. Majority of the respondents disagreed and strongly disagreed at 20.12% and 43.02% respectively. They explained during interview that the mode of study selected was in tandem with the available time for studies. They preferred part-time mode of study over the regular one. They noted that they were working, family people and also engaged in business which would not allow them to be on a regular mode of study. They also reported that they fund their studies which forced them to engage in income generating activities to pay

school fees. This was supported by one of the female doctorate students from University D who indicated that;

Part time mode of study is very comfortable with me since I am a family person, I have a fulltime day long job and I also have some side hustles business that I am running. This made me to choose this mode of study since my employer will not allow me a study leave making it difficult to manage full time. My employer will only allow unpaid leave which will negatively impact on me financially. I furthermore don't want my employer to know that I am undertaking studies for a simple reason of feeling insecure. – A female doctorate candidate at the University D'' (RS/31/DL/FE/DU)

Meanwhile, another female doctorate candidate from university B noted that:

Part-time studies flexibility is perfect for me since I am able to do a number of things within limited time available for me in a day. Further to that, I am employed by the university which makes it easier for me to be able to work and at the same time studyto me this stands as a win-win situation- A female doctorate candidate at University B'' (RS/26/DG/SHSS/BU)

Another male doctorate candidate from university D observed:

I was compelled to change my doctorate programme mode of study from regular full time to evening and weekend class mode. This is because I had hardly enrolled for doctorate studies than I immediately got a new employer. My new employer was uncomfortable with me studying at the same time working I actually lied to the employer that I had stopped studying for the institution to continue accepting me. You know, not all people who like it when you advance studies since they

may think you will demand a pay rise - A male doctorate candidate at University D” (RS/22/DG/SHSS/DU)

In addition, another female doctorate candidate from university C noted:

The doctorate programme I am studying demands that I become a full time student. If it were possible, I could have enrolled for a part time doctorate programme but as for now, it is impossible. Let me focus to work hard and complete my studies the soonest so that I can move on with life.and just to let you know, it was an uphill task to be granted a study leave. I always thank God since I am employed by government institution which has a policy for study leaves- A female doctorate candidate at University C” (RS/15/DPBS/SPAS/CU)

The mode of study preferred by doctorate students was clearly the one which favored their respective working conditions. The findings on mode of study by doctorate students is in line with Gardner (2012) who reported in a study that doctorate students prefer part time studies. The study found out that part time gave them freedom to engage on other activities beside their studies. The above responses were tied to the lecturers’ response which was collated and presented in Table 4.12

Table 4.12: Lecturers' Responses on Institutional Doctorate Programme Practices

S/N	Item	Strongly Agree		Agree		Disagree		Strongly Disagree	
		N	%	N	%	N	%	N	%
1	The school is adequately staffed with academic members.	7	8.64	12	14.81	19	23.46	43	53.09
2	The length of admission into doctorate programmes is long	29	35.80	15	18.52	21	25.93	16	19.75
3	Graduate school is satisfied with current enrolment and completion rates?	13	16.05	9	11.11	20	24.69	39	48.15
4	The school keeps proper records of student's progression to graduation	16	19.75	14	17.28	17	20.99	34	41.98
5	Doctorate programme policies need to be revised to reflect the current trends in education	33	40.74	27	33.33	11	13.58	10	12.35
6	You are satisfied with doctorate students mentoring process?	31	38.27	23	28.40	13	16.05	14	17.28
7	There is adequate orientation and involvement in school and departmental programmes and activities?	32	39.51	21	25.93	12	14.81	16	19.75
8	The mode of study influences completion rates?	41	50.62	24	29.63	7	8.64	9	11.11

Sources: Fieldwork Analysis (2019)

Table 4.12 presents the lecturer's responses on institutional doctorate programme practices. Lecturers were asked to rate the adequacy of academic staff members. They strongly disagreed that schools and departments were adequately staffed at 43 respondents representing 53.09%. They expressed their frustrations on the magnitude of their responsibilities. One lecturer who doubles as the chairperson/head of department noted that;

As a lecturer and a head of department, I am overwhelmed by the responsibilities of teaching both the undergraduate and graduate students besides my administrative responsibilities. I therefore can confirm that my department and the university at

*large is seriously understaffed.’ A Lecturer University A
(RL/7/PBS/SPAS/UA)*

On the length of the admission process, 29 (35.8%) strongly agreed that it took long. The lecturers further observed that though much is done to hasten the process, those who undertook doctorate programmes based on thesis, the process of admission was slow. This was because a doctorate candidate had to write a concept paper, then be allocated supervisors and then start to write a proposal. It was noted that upon defending that proposal at the department and in some universities the school level, it was when the candidate could be registered formally as a doctorate candidate.

The study also found out that graduate schools (also known as Board of Postgraduate Schools) were not satisfied with levels of doctorate enrolment and completion across schools and universities at 48.15% of the respondents. On whether schools and departments keep proper doctorate programme records of students, 41.98% of the respondents strongly disagreed with the statement. One of the respondents noted;

As a lecturer and supervisor, I am aware that one lecturer at any given time would be supervising up to six doctorate candidates, this numbers increase when you consider Masters and Undergraduate students whom he may be teaching and supervising alongside other administrative duties that they have.....these numbers sometimes made it difficult to keep up-to date records of all students” (RL/12/CHES/SPAS/UB)

The researcher at some point reverted to a tracer format in order to get some doctorate students. Schools were not able to give accurate data of those enrolled and when they

were enrolled. The lecturers further strongly agreed at a rate 40.74% of the respondents that doctorate programme policies require revision from time to time in order to accommodate new horizons in education. Lecturers were asked to rate the mentoring process by schools and departments. They strongly agreed with the statement at 38.27% of the respondents. Lecturers noted that they always involve doctorate students on various programmes that were deemed to be mentorship platforms. They cited seminar papers presentation as well as attending academic workshops and conferences as areas in which they involve doctorate students. A lecturer from University D observed during the interview that;

As a lecturer and supervisor, I encourage my students to attend academic conferences and present papers. I am aware also of the invitations always extended to the doctorate students to attend departmental seminar proceedings'
(RL/12/PSY/SECD/UD)

Another lecturer from university C observed;

I personally ensure that all students I supervise must attend at least one academic conference and present a paper. I endeavor to guide them on how to write quality academic papers. I further advise them on the best journals to publish their work with...oh I think I have put sufficient effort in mentoring process (RL/13/DH/SASS/UC)

Similarly, lecturers were asked to rate the departmental and school orientation of the doctorate students into their academic programmes as well as integration into their activities. Majority of the lecturers, 39.51% strongly agreed that they were oriented into departmental academic programmes. However, they noted that most of the information

has been left to the departmental administrative assistants and secretaries to pass to students which may lead to communication breakdown. These findings are consistent with studies carried out by Rooiji et al. (2019). They established that integration into the school or department which host doctorate programme boost the morale of the candidate thus enhancing completion. They cite activities such as seminar and workshops at the school and departments as key in supporting the doctorate students.

Lecturers were further asked to comment on whether the mode of study influenced doctorate completion rates. Majority of the lectures 50.62% observed that the mode of study really had an impact of the time to doctorate degree. Most doctorate students were working people with additional responsibilities such as the families, societal responsibilities, and personal interests including businesses which made it complex for them to progress and complete their degrees on the timelines given. These responsibilities had a direct impact on the length of time a doctorate candidate took. A lecturer from the University A observed that;

As a career woman, it wasn't easy to complete my doctorate programme studies, so much was expected of me from both my family and at my place of work...the society is not kind to a woman...I was asked severally to drop the studies and concentrate on my career and family...I thank my husband who was understanding and empathized with me. Many other women who wish to pursue their individual doctorate studies but are tied by many other responsibilities and most importantly cultural setback...for your information it took me five and a half

years to clear my studies and I almost gave up.”
(RL/12/PSY/SECD/UD)

This is in line with the study findings by Essa (2011) which established the challenges experienced by postgraduate students. The study reported that those doctorate students who were working adults had other responsibilities such as family and business beside workplace commitments. Maasdorp and Holtzhausen (2011) further reported in a study that the challenges of workload experienced by the postgraduate students are enormous. The study found out that they had a serious imbalance concerning their employment, studies and family responsibilities. Benschhoff et al. (2015) concur by adding that doctorate students are faced with the challenge of fulfilling multiple roles, expectations and responsibilities. This affects their thesis completion timelines as stipulated by the university policies. Rong'uno (2016) also found out in a study that the family responsibility, commitments at work and inadequate thesis writing skills determines the period taken by an individual to complete a doctorate degree.

4.8 Doctorate Programme Supervision Process and Doctorate Completion

The third objective was to establish how institutional doctorate degree supervision practices influence doctorate completion in selected Kenyan public universities. Nine (9) items were offered to the doctorate students and another set of eleven (11) items presented to the lecturers in the selected public universities in Kenya. Each of these set of respondents were required to rate the statements which wanted to establish the role of supervision process and practices influencing doctorate programmes enrolment and

completion rates at Kenyan public universities. This was based on the Likert Scale 4= Strongly Agree (SA), 3=Agree, 2=Disagree (D) and 1= Strongly Disagree (SD). Their responses were presented in two separate tables for doctorate students and lecturers in table 4.13 and 4.14 respectively

Table 4.13 Doctorate Students' responses on supervision and Completion rates

S/ N	Item	SA		A		D		SD	
		N	%	N	%	N	%	N	%
i.	Good rapport between supervisor and doctorate student is a critical element.	253	50.40	196	39.04	22	4.38	31	6.18
ii.	Inadequate guidance on topic selection by supervisors may lead to delays	261	51.99	201	40.04	16	3.19	24	4.78
iii.	There is need to increase the number of the faculty in the schools to boost supervision	193	38.44	176	35.06	54	10.77	79	15.74
iv.	Supervisors lack adequate contact time with the supervisee which may lengthen completion period	273	54.38	198	39.44	13	2.59	18	3.59
v.	Doctorate programme policies need to be revised to reflect current needs	166	33.07	152	30.28	89	17.73	95	18.92
vi.	Departments and schools need to enhance their mentoring skills	213	42.43	176	35.06	62	12.35	51	10.16
vii.	The mode of study influences completion rates?	255	50.80	102	20.32	66	13.14	79	15.74
viii.	Supervisors' motivation is poor.	266	53.00	193	38.45	19	3.78	24	4.77
ix.	Supervisors take long to response to doctorate student's work	254	50.60	197	39.24	18	3.59	33	6.57

Sources: Fieldwork Analysis (2019)

The study sought to find out the influence of supervisor-supervisee relationship on enrolment and completion rates of the doctorate programmes. The respondents were required to state if the rapport between the supervisor and supervisee had a direct impact on enrolment and completion. The respondents across the selected public universities: 253 respondents representing 50.40% strongly agreed that the rapport between the two is critical while 39.04% agreed. Good rapport enhanced participation and the consequence of such engagement is high completion rates. The doctorate students observed that a cordial working relationship between the doctorate students and their supervisors leads to willingness and motivation on the side of the supervisor to mentor the doctorate student. The study therefore established that there are supervision variables from the student perspective which have a direct influence on doctorate programme completion. The one cited by students include, the rapport and type of supervision. The findings concurs with Leijen et al. (2016) who reported in a study that school and departmental cultural challenges related to doctorate supervisions relationships often contribute to the decision to quit from a doctorate programme. They reported that this could be accelerated by family, work and personal challenges. This was supported by a male doctorate student from University B who observed that;

*The culture of supervisor allocation in my department is not friendly. As a candidate, you are not give a chance to choose the person whom you may work with a lot more cooperation. The department chooses for you and there the challenges begin” A male doctorate student University B”
(RS/41/DCSEM/SOE/BU)*

When asked whether inadequate guidance on the thesis topic selection may lead to delays? Majority of the doctorate students, 261 out of 502 respondents representing 51.99% strongly agreed that it would lead to delays. The doctorate students observed that they usually have an idea of what they need to study while the supervisors possess the way such a study will be structured. They observed that, they had to propose a number of topics before they settled on one of them. One of the female doctorate students from University D noted that;

I made several topic proposals before one was accepted. One of my supervisors had a fixed mind on what he wanted me to research on. He argued that that he wanted me to research on an area where funding was available. He was more interested in acquiring funding using me and not concerned on what I had passion to study on. This brought a sense of frustration to me from the word go.” A female doctorate student from University D (RS/15/DPHY/SPAS/DU)

The finding from the current study is in agreement with Devos et al., (2017) which established that the support offered by supervisors to doctorate students is perceived as the driver of continued progress and success in a doctorate programme This is supported by Grady et al. (2015) who reported that unsupportive supervisory roles like delays and inappropriate feedback will delay the process of doctorate programme. This is further supported by Teklesellassie, (2019) who reported in a study that any existence of perceived development of social-psychological and academic conflicts will strain the candidates’ progress in doctorate research. Therefore, the role of supervisors in research supervision is so critical in determining the outcomes and should be emphasized from the onset of the project for the smooth running of the study.

The doctorate students noted that guidance is important in ensuring that steadfast progress during a doctorate programme is achieved. The findings of the current study are in line with findings from studies done in the past. For example, Barnes and Austin (2009) noted that many students feel that effective supervisor guidance is a crucial factor in a timely completion of a doctorate programme. Similarly, Nerad & Miller (1996) reported that the nature of guidance offered greatly influence the doctorate students' research progress. This means that inadequate doctorate student guidance hampers timely doctorate completion. Additionally, if a supervisor places the burden of thesis writing entirely on the student, the time to completion is protracted. Ray (2007) supports the findings through underscoring that some of the most efficacious doctorate students had supervisors who not only provided guidance but also the autonomy they needed to grow as scholars. The proper doctorate student guidance is closely tied with cordial working relationship. The respondents observed that when supervisors-supervisees enjoy a good rapport, greater academic success is achieved. They further observed that frustrations can emerge from the way a supervisor packages and presents comments for the doctorate student. A doctorate student from university D supported this by observing that;

What caused delays and frustration on me was the lack of consistency in comments given by my supervisors ...on one hand, one of them would say the work is okay, while on the other hand the co-supervisor would rubbish my work. The worst could be when he could not provide an alternative idea of what I should do and how to present it or even guiding me on what type of academic resources I could use.....Indeed and for sure, one needs a big heart to have such a person as a

supervisor and to balance his attitude with the one who would guide you that things are okay, then be sure on the next steps to undertake.....without this one can easily give up...” A doctorate student from University D (RS/15/DPHY/SPAS/DU)

These sentiments by (RS/15/DPHY/SPAS/DU) from University D are supported by Spaulding and Rockinson-Szapkiw (2012), while studying the reasons why doctorate students persist to completion of a doctorate programme. They identified student's inherent qualities and their ability to seek information, the supervisor-supervisee relationship and their scholarly environment as well as the quality of research facilities.

Further question was posed to the doctorate students on the need to increase the number of faculty in the schools selected to boost supervision. The respondents strongly agreed (38.44%) while 35.06% agreed that there was need to increase the number of lecturers. This was tied up with the aspect of supervisor- supervisee contact time. Moreover, 54.38% strongly agreed while 39.440% of the respondents agreed that lecturers lacked adequate contact time with doctorate students they supervised. They noted that most lecturers complain of being overworked and this took long to read and respond to their work in time. This also reduced the supervisor-supervisee contact time which had a direct impact on the length of time the doctorate programme could take. The student respondents also noted that because of the excess amount of work and probably due to poor remuneration, the lecturers lacked motivation. All these had a consequence of lengthening the period of study thus reducing on the completion rates. The doctorate respondent observed the following;

Whenever I make efforts to meet my supervisor something would always crop up about his availability and unscheduled meetings, sometimes the meetings would be out of town and will be unavailable for long and when he is on campus, he would be from one meeting to another and if not then the rest of the time he will be in class” A doctorate respondent – university D (RS/28/DPHY/SPAS/DU)

Another female doctorate student observed the following with regard to relationship;

I have a cordial relationship with my supervisors, while they are often available the workload is visible as you would hear them mention about past due reports and reviews, a number of my colleagues are way behind schedule as their supervisors are overwhelmed by administrative and other engagements.”- A female doctorate respondent –University A (RS/15/CS/FE/DU)

The current study established that doctorate programme students’ experiences of their supervisors being uncooperative, aloof and rigid, and having a negative attitude towards them were expressed through interviews. This is supported by Clerehan et al. (2012) who in a study found out that many doctorate students felt that their lecturers were distant, unreachable, and unsociable. Furthermore, Wadesango and Machingambi (2011) concur with the importance of support from the supervisors by clarifying that the sufficient number of supervisors for a doctorate programme is fundamental to progress and completion of the doctorate programme.

Furthermore, doctorate students were asked to comment on the need to revise doctorate programme supervision policies. 33.07% strongly agreed while 30.28% agreed that they need to be revised. These policies need to be revised in order to match the student and supervisor needs. A female doctorate student observed that;

There is need to encourage open policies where doctorate students do not feel intimidated whenever they point out challenges they face with their supervisors and the supervision process. Sometimes, I experience difficulties to share my challenges. This act disempowers me from proactively engaging with my supervisors. I fear repercussions of victimization' a female doctorate student from University C (RS/15/CS/FE/CU)

This would eliminate the insecurity experienced by doctorate students who fear reprisals from their supervisors. Doctorate students' singled out conflict with their supervisors if they raised challenges. They further observed that they are subordinate and in a dependent positions to their supervisors and the universities in academics and social growth. This is in agreement with a study by Metcalfe et al. (2018) who argued that doctorate students fear raising the problems they meet in the course of their doctorate programme to their supervisors or the university. Students in the current study explained through an interview that universities are not ready to listen and address their doctorate challenges related to supervision. They instead blame it all on the doctorate programme students.

As a doctorate student, I gave up presenting any grievances I may have to either my supervisors, department or school management. I tried at the initial stage of my doctorate

programme and nothing was being done. At some point, the very information I shared in confidence to an officer in my department was shared. I learnt this when one of my supervisors casually commented that there is nothing I could do, he is the boss..... Quite frustrating. Tell me at that point if it were you, could you try to make any request to the university? I believe, most doctorate students are intimidated and frustrated.”
Male doctorate student from University C (RS/15/CS/FE/CU)

Another item presented to the doctorate students was on whether the mode of study had an impact on the enrolment and completion of the doctorate programme. There was consensus that indeed the mode of study has a direct impact. Majority of doctorate students representing 50.80% strongly agreed while 20.32% agreed that mode of study had an impact of doctorate completion. Through interview, most of the doctorate students observed that they were tutorial fellows, research assistants or teachers. Those working as tutorial fellows complained of having been assigned a lot of responsibilities which reduced the time, they spent in doing their studies. Teachers preferred school-based programmes to pursue their doctorate programmes. Besides, they had responsibilities at their place of work as well as family obligations. All these delayed their progress in studies. They observed the following;

The position I hold in my capacity as a tutorial fellow has made my life hectic. I am expected to teach a number of units per semester in a large class, assigned marking and carry out other departmental responsibilities such as time tabling. This is further complicated by my status as a family man all these have driven me crazy as a student and thus prolonging my stay in the university” a male doctorate student university A (RS/15/CS/FE/CU)

The doctorate students were further asked to comment on whether schools and departments undertook mentoring programmes. The satisfaction index of those who strongly agreed that they were involved in mentorship programmes such as presenting conference papers and how to write proposals was at 42.43% with those agreeing being 35.06% while there are those who strongly disagreed that universities have not done much in enabling them to acquire new skills regarding their area of study based on their interests accounted for 10.16% and disagreeing being 12.35%. Similarly, doctorate students were asked to rate the supervisors' motivation. An overwhelming majority 53.00% strongly agreed while 38.45% of the respondents agreed that indeed their supervisors' motivation was extremely poor. This was linked to a question of how long the supervisors took to respond to their work. Majority of the doctorate students 50.60% strongly agreed while 39.24% agreed that it took long for them to respond to their work. When enquiring from their lecturers, one of them observed that;

Time is often very limited and there is often a lot of work to do, coupled with masters and doctorate dissertations, there is hardly enough time...though I understand that Universities are doing the best they can to ensure the staff capacity is at optimum...however they often have a shortage in staffing at one point or another.” Lecturer at University A (RS/20/CS/FE/UA).

This observation is in agreement with a study by Prazeres, (2017) who found out that the role of a supervisor is multifaceted with complex responsibilities which may take long to be achieved. The length has an impact on the doctorate student too since it will take relatively long to respond to the work.

Table 4.14 Lecturers' Responses on Doctorate Supervision and Completion Rates

S/ N	Item	Strongly Agree		Agree		Disagree		Strongly Disagree	
		N	%	N	%	N	%	N	%
1	Good rapport between supervisor and doctorate student is a critical element.	42	51.85	21	25.93	11	13.58	7	8.64
2	Inadequate doctorate student guidance on topic selection, concept paper writing and proposal development by supervisors may lead to delays	34	41.97	28	34.57	13	16.05	6	7.41
3	There is need to increase the number of qualified lecturers in the school to boost supervision	43	53.09	22	27.16	9	11.11	7	8.64
4	Supervisors lack adequate contact time with the supervisee which may lengthen completion	27	33.33	23	28.40	12	14.81	19	23.46
5	Doctorate programme policies need to be revised to reflect current needs	41	50.62	29	35.80	6	7.41	5	6.17
6	Departments and schools need to enhance their doctorate programmes mentoring skills	44	54.32	22	27.16	8	9.88	7	8.64
7	The mode of study influences completion rates?	31	38.27	19	23.46	14	17.29	17	20.98
8	Supervisors' motivation is poor.	47	58.02	31	38.27	2	2.47	1	1.23
9	Lecturers are overwhelmed by duties besides doctorate supervision	46	56.79	30	37.04	1	1.23	4	4.94
10	Doctorate Students don't take supervision instructions seriously	37	45.68	25	30.86	9	11.11	10	12.35
11	Students take long to respond or sometimes disappear completely.	45	55.56	17	20.98	8	9.88	11	13.58

Sources: Fieldwork Analysis (2019)

Table 4.14 represents those responses by the lecturers on doctorate supervision and completion rates. The lecturers were asked to rate the importance of the good rapport between the doctorate student and their supervisors. 51.85% of the lecturers strongly

agreed while 25.95% of the lecturers agree with the statement. On the other hand, 8.64% of the lecturers strongly disagreed while 13.58% disagreed. Those who strongly agreed observed that the influence of doctorate student's supervisory perceptions on their interpersonal style with their supervisors greatly impacted on the doctorate progression. They argued that without good working relationship, the students feel out of place and are not content with their skills especially when developing a proposal and final thesis writing. Some students feel humiliated when corrected by their supervisors which keep them at bay. These findings are in agreement with studies by Bui (2014) and Golding (2017) that recognized four key themes related to supervisor-supervisee relationship. These are; perceived role of the supervisors and their expectations, the intellectual capabilities of the doctorate student from the supervisors' point of view, the logistical and emotional expectations. The supervisors ought to provide guidance all through the course of doctorate studies and help mitigate challenges experienced by the supervisee. This was closely connected to the item on topic selection by the students they supervise. 41.97% of the lecturers strongly agreed while 34.75% agreed that inadequate guidance on topic selection through to thesis writing and final submission will lead to delays. Only 7.41% strongly disagreed while 16.05% disagreed. Through interaction with lecturers, they underscored that it is the student who selects what they need to study and write on. That lecturers only offer guidance based on what the student chose to research on particularly on thesis writing process.

One of the lecturers from University B noted that;

In my so many years in academia and as a Professor there are lessons I have learnt, but the most important is that my job

requires I be a role model to mentor upcoming scholars, while this is not part of my job description, I desire when I retire someone good enough to take up this job and do it well....some of my colleagues are not persuaded in my vision and thoughts which at times leads to conflict with students...but sometimes students need to be a bit patient and willing to be guided and mentored rather than have a know it all attitude..."A professor from University B (RL/20/EF/SoE/UB)

When the lecturers were asked to respond to the item on whether to increase the faculty to enhance supervision, they strongly agreed at 53.09% while those who agreed with the statement were 27.16%. Lecturers observed that public universities are seriously understaffed while adding that they are overwhelmed by the responsibilities they undertake at the schools and departments. They noted that the student-faculty ratio was beyond the recommended ratio. In support of this and according to the Ministry of Education (2012), the country's university education system is expected to create sustainable pools of highly trained human resources equipped with the skills required for the country to experience socioeconomic development and to remain globally competitive in a rapidly changing and more diverse economy. This will enable the country to actualize the national ambition of being a knowledge-based economy. Given the centrality of (university) education in Kenya's development, the government has, since independence, invested heavily in all sectors of education with the goal to widen access at all levels. To establish this Table 4.16 indicates the staff establishment against the students serviced from undergraduate to doctorate.

Table 4.15 Staff establishment in the selected universities

S/NO	University	Professors	Lecturers	Tutorial Fellows	Totals
1	UoN	21	56	72	149
2	KU	26	49	83	158
3	MU	23	47	56	126
4	EU	20	35	42	97
Totals	4	90	187	253	530

Sources: Fieldwork Analysis (2019)

It is clear from Table 4.15 of the staff establishment records that the number of professors is 90 making a 16.98% while the lecturers are 187 making up of 35.28% and the tutorial fellows are 253 or 47.73% respectively. The study established that the highest number of the teaching staff is the tutorial fellows in the selected public universities in Kenya which could be a replica of all other public and private universities in Kenya. This finding indicates that staff at the public universities are way below the expected standards. To determine the faculty-doctorate student ratio, the total number was computed and presented below in Table 4.16.

Table 4.16 Faculty to Student Ratio

University	Staff(Professor, Senior lecturer, Lecturers & TF)	undergraduate	Undergraduate Ratio	Masters & Doctorate	Staff(Professor, Senior lecturer & Lecturers)	Masters & Doctorate Ratio
UoN	149	13,112	1:88	1,208	77	1:16
KU	158	14,331	1:91	1,214	75	1:17
MU	126	6,326	1:51	821	70	1:12
EU	97	5,587	1:58	787	55	1:15

(Source: Universities Admission Records 2019)

Table 4.17 indicates the number of students distributed per university where the study took place in the schools and departments selected. Based on this, faculty-student ratio

was computed. At University A, the ratio of faculty to students at undergraduate level was 1:88 while at B University undergraduate the ratio was 1:91. C University had a ratio of 1:51 at the undergraduate level and D University had a ratio of 1:58 in the sampled schools and departments respectively. These findings established that at each of the sampled universities, the undergraduate faculty to student ratio was way high than the recommended ratio by the Universities Standards and Guidelines PROG/STD/17.

The guidelines recommends that for undergraduate, the ratio ought to be 1:10 for the applied Sciences, 1:15 Arts and Humanities, 1:7 Medical and Allied Sciences, 1:10 Pure and Natural Sciences and a further 1:18 Social Sciences. Furthermore, for masters and doctorate students a separate computation was done since the lecturers and professors are the only ones entitled to teach and supervise this cadre of students. The University A was found to have 1:16, B University had a ratio of 1:17, and C University had a ratio 1:12 while University D had a ratio of 1:15. The Universities Standards and Guidelines PROG/STD/17 recommend a ratio of 1:5 and 1:3 Masters and Doctorate supervision respectively. This was interpreted to mean that one lecturer will examine approximately 15 theses. When calculated on average, the overall faculty-student ratio stood at 1:157. This meant that a single lecturer handles 157 students (undergraduate, masters and doctorate levels). This is besides other responsibilities that they perform within the university.

Findings from the foregoing discussion indicate that selected Kenyan public universities are seriously understaffed. The selected universities are the oldest in terms of establishment, the largest in terms of population and have the highest number of doctorate programmes, ought to have the highest number of lecturers with doctorate (professors and lecturers). The result indicates otherwise which means that the ratio could be higher in other public universities. This has a direct impact on enrolment and completion of the doctorate programmes. Based on the recommendations by Commission for University Education of faculty to doctorate student ratio and the actual situation at the universities concerning the number of faculty with doctorates, it is imperative that universities should strive to increase the faculty numbers by 150%-200% in order to match the need.

The lecturers were asked to comment on adequacy of contact time between the supervisor and supervisee. On contact time between doctorate students and their supervisors 33.33% of the lecturers strongly agreed that there was inadequate contact time while 28.40% agreed. The findings were interpreted to mean that doctorate students rarely meet with their supervisors. Doctorate students noted that every time they seek for supervisor's audience, they are told that they are busy or engaged elsewhere. Through the interviews with the respondents, they observed the following;

As a lecturer, I hardly have time to meet and discuss with my doctorate students. Whenever they want to see me, I am either in a meeting or handling undergraduate lecture or meeting with masters students who are many as opposed to this

single doctorate student. 'Lecturer from University D (RL/15/CS/FE/DU)

Another lecturer noted that;

These doctorate students always never turn up whenever I have time. They just pop-up when I am heading for a crucial meeting. I have little I can do at that time.' A Professor from University C (RL/15/CS/FE/CU)

The study sought to find out what were the views of the lecturers with regard to reviewing of the doctorate programme policies. 50.62% strongly agreed with the statement while 35.80% agreed. These findings are in agreement with Harley's (2020) study which underscores the need for enhanced institutional doctorate programme procedures and policies with the intended outcome of high quality of individual doctorate graduate achievement. This was tied to an item on the need to enhance doctorate mentorship programme within their universities. 54.32% strongly agreed with the statement while 277.16% agreed. The lecturers indicated that there was some mentorship programmes offered for doctorate students. This was in form of presenting papers and attending conferences. One of the lecturers, in course of the interview noted that,

For the period I have been supervising my doctorate students, I always inform them of the available opportunities such as academic paper presentation and seminar attendance within the university and even beyond. I recall to have co-authored papers and watching them present. If this is not mentorship, then I don't understand what that is" A lecturer from University D (RL/17/CS/FECD/DU)

In the course of carrying out interviews and interacting with the respondents the researcher observed that universities occasionally organize for workshops and trainings where doctorate candidates receive critical skills on how to progress with their studies. Scholars who have considered mentorship programmes during doctorate studies have also underscored on the need to have a close working relationship between the supervisor and supervisee. This observation is augmented by Curtin, Malley and Stewart (2016), who states that interactions between different types of mentoring programmes was critical for doctorate students. These were linked to doctorate programmes' goals career interests and self-efficacy of the doctorate student. They acknowledged and emphasized on active mentoring which is composed of training in research ethics, research methods, content and procedures in doctorate programmes. They further found out that effort must be geared towards ensuring that the mentee was rendered openings to study what they need to know. Further, the lecturers were asked to comment on whether the mode of study influenced doctorate enrolment and completion rates. 38.27% of the lecturers strongly agreed that indeed the mode of study had a direct impact while 23.46% agreed. They noted that majority of their doctorate students were working class people who enrolled for part-time mode of study. They had both job and family responsibilities which took much of their time. Some of them had other businesses beyond the job and family. This meant that they had divided attention and their studies would not take precedence. Tied to this was the item on whether lecturers' motivation was poor. 58.02% strongly agreed while 38.27% of the lecturers who responded agreed. The lecturers noted that they were poorly remunerated whenever they supervise doctorate students. They felt that supervision process especially at doctorate

level was an extra duty which required universities to pay for. An interview with an academic member of staff stated as follows;

I speak on behalf of myself and many others, while supervising a doctorate candidate is good for my career growth, there is little benefit attached to it. This is in addition to other responsibilities that I have in terms of running various functions as assigned, and lecture at times from bachelors' students all through to doctorate candidates. Universities must have tutorial fellows to work under their professors so that they get the right skills while easing the burdens that we carry. Consider that I have both masters and doctorate candidates to supervise. Don't you think that is too much to? In any case doctorate scholars should handle most of this by themselves" A lecturer from University C (RL/8/CS/FE/CU)

Data collected indicated that there were payments for thesis examination however for those who supervise, they are encouraged to do so for their career growth. Further tied to this was whether lecturers were overwhelmed with duties. 56.79% of the lecturers strongly agreed that they were overwhelmed while 37.04% agreed with the statement. This is in line with the earlier findings on this study that faculty student ratio was wide and not favorable. They furthermore observed that doctorate students don't take instructions. This was observed by 45.68% who strongly agreed while 37.04% agreed with the statement. 55.56% strongly agreed that doctorate students are given comments on their work yet they take long to respond. That some disappears for months, even years and only resurface abruptly and need instant reviews for personal gains especially those employed as tutorial fellows and need appraisals at certain periods of time.

Lecturers further observed that they always give comments to the doctorate students which they hardly follow.

4.9 Institutional Resources and Doctorate Enrolment and Completion Rates

Objective four of the study was to establish the influence of institutional resources on enrolment and completion rates in doctorate programmes among the selected public universities in Kenya. Various items were presented to both lecturers and doctorate programme students to give their responses on. The respondents were to rate the items that were given in order to establish the influence of institutional resources on doctorate programme enrolment and completion rates in selected public universities in Kenya. This was based on the Likert Scale with 4= Strongly Agree (SA), 3= Agree (A), 2= Disagree (D) and 1=Strongly Disagree (SD). Their responses collated, analysed and presented at two levels; students' level and lecturers' level. This has been presented in Tables 4.17 and 4.18 respectively.

Table 4.17 Students' Responses on Institutional Resources, doctorate programmes enrolment and Completion rates

S/No	Item	Strongly Agree		Agree		Disagree		Strongly Disagree	
		N	%	N	%	N	%	N	%
1	There is sufficient physical facilities such as library space for doctorate students	107	21.31	103	20.52	135	26.90	157	31.27
2	Inadequate access to ICT materials has also hindered access to information for doctorate students.	96	19.12	88	17.53	151	30.08	167	33.27
3	Funding for doctorate students is inadequate for public universities.	196	39.04	174	34.66	54	10.76	78	15.54
4	There is insufficient number of qualified academic members in the schools to enhance doctorate programmes	263	52.39	186	37.05	22	4.38	31	6.18
5	Doctorate students are funded to attend academic conferences	93	18.53	98	19.52	142	28.28	169	33.67
6	The universities host high indexed and quality peer reviewed journals with regular publications	195	38.84	174	34.66	52	10.36	81	16.14
7	There are International linkages and collaborations	256	50.99	193	38.45	24	4.78	29	5.78
8	The cost of doctorate programme is within the reach.	5	1.00	2	0.39	189	37.65	306	60.96
9	Finding a doctorate programme scholarship is easy.	18	3.59	14	2.79	178	35.46	292	58.16
10	It is easier to access off-campus e-resources	236	46.01	183	36.45	46	9.16	37	7.37

Sources: Fieldwork Analysis (2019)

Table 4.17 gives a summary of doctorate students' responses on the institutional resources and their impact on doctorate programme enrolment and completion rate from

selected public universities in Kenya. When asked about the availability of the physical facilities such as the library space, 31.27% strongly disagreed while 26.90% disagreed. However, through interview, doctorate students commended universities for their effort to create a reading section for postgraduate students. However, they were concerned with lack of control for such spaces since undergraduate students mostly occupy them. Furthermore, majority of doctorate students; 30.08% strongly disagreed and 33.27% disagreed respectively with the statement that inadequacy of access to ICT materials have also hindered access to information for doctorate students. They noted that universities have heavily invested on ICT equipment and internet services. They however raised the issue of frequent internet fluctuations. A doctorate student observed that;

Whereas the university has created reading cubicles for doctorate students, most of them have broken furniture and electrical cables dangerously exposed. I have repeatedly told the librarian in-charge but there seems to be no action taken. The internet cable and ports are not working. This is coupled with frequent internet interruptions. Many a times I feel frustrated since I pay extra money for that service.' A doctorate student from University C (RS/24/CS/FE/CU)

The doctorate students were asked to comment on availability of funding for doctorate programmes. 39.04% strongly agreed while 34.66% agreed that there is acute shortage of funding for doctorate students. In course of interview, doctorate students noted that they fund their studies. They noted that doctorate programmes in universities are overly expensive which prompt them to take long in raising the required school fees. When

asked to comment on the sufficiency of the academic members of staff, they overwhelmingly agreed that universities are seriously understaffed with qualified academic members. 52.39% strongly agreed while 37.05% agreed that indeed universities have inadequate members of staff. Students observed that as a result of this, some processes are delayed such as decisions on topic selection, reading and returning the students' work by their academic supervisors. One of the male student observed the following during an interview;

I would wish that there was sufficient time dedicated to me as a doctorate student. I was assigned supervisors, yes, but we have never met to chat the way forward. Whenever I look for them, they explain to me that they are overwhelmed. Always in meetings, teaching undergraduate students and no time for me." A male doctorate student from University B (RS/32/CS/FE/BU)

Doctorate students also confirmed that they have a serious challenge of attending international academic conferences. 33.67% strongly disagreed while 28.28% disagreed that universities fund them to attend conferences. They noted that conference charges are high which puts them off from attending. They however noted that universities host high indexed peer reviewed journals where they could publish. This was supported with 38.84% who strongly agreed while 34.66% agreed. This was closely tied with whether universities had international linkages and collaborations. 50.99% strongly agreed while 38.45% agreed that linkages and collaborations existed. This sometimes led to student exchange programmes which exposed them more on their fields of specialisation. Furthermore, they were asked to comment on the cost of various doctorate programmes

and how easy could one access a scholarship. Majority, 60.96% strongly disagreed while 37.65% disagreed that the cost of doctorate programme is within reach. They observed that universities charge highly for the programmes citing a cost of not less than a half a million Kenya shillings per programme which is actually out of reach for many potential candidates. On how easy to access a scholarship, they cited difficulties in this with 58.16% strongly disagreeing that is easy while 35.46% disagreeing which demonstrates that chances of getting a scholarship for doctorate programmes is almost zero in Kenyan public universities. This is because; students have to work to fund their studies. In support, a student in university a female doctorate student observed during an interview that;

I joined a doctorate degree programme with the hope of earning a scholarship mid –way to no avail. Income from all sources does not meet my financial requirements. I sometimes go without meals in order to save something for printing. Family demands are also heavy on me. This has left me to sometimes undertake menial jobs to fend for the family.’’ A female doctorate respondent from University A (RS/15/CS/FE/UA)

Doctorate students also complained of critical information missing on the universities online libraries. They however applauded the universities for embracing e-resources with easy access to them. This was supported by 46.01% who strongly agreed while 36.45% agreeing. But with the physical libraries, they rated the universities as doing poorly on this. One male doctorate student from university B observed that;

I regularly visit my university library with the hope of finding latest collection in my area of study. However, to my surprise, little is found. Often, those that are available are not actually sufficient for all doctorate students.” A doctorate candidate from University B (RS/15/CS/FE/BU)

Another male student from University D agreed by observing the following;

Sometimes I cannot access library since we are studying on weekends and evening and when we access there is no space and the librarians are not willing or are unable to help us in accessing the online journals and other materials needed” A male University D (RS/15/CS/FE/DU)

These findings are supported by Nyangau (2014) and Munene (2016) who underscore that severe shortage of teaching and learning amenities in many public universities are revealed in many forms. Firstly, public universities experience shortages of lecture theatres with existing ones being dilapidated. Secondly, public universities are also synonymous with the lack of spacious libraries that are sufficiently stocked with current reading materials (Munene 2016). This is despite surge in student numbers while libraries tend to have outdated collections and restricted internet connectivity as a result of funding cuts. This means that students and faculty often work without access to essential components of university work, such as current textbooks and academic journals. A male doctorate student from University B observed that;

My area of study involves complex practical sessions which sometimes are not comprehensively available in my country. This compelled my supervisor to seek sponsorship for me. I had

to travel outside the country to undertake some practical sessions.... And so, when I travelled to Europe, I got more exposed and am happy. I enjoy new academic partnerships with the new friendship I established. A male doctorate student from University B (RS/15/CS/SPAS/BU)

The doctorate students underscored the need to improve on infrastructural facilities for doctorate programme. They observed that universities were generally ill-equipped. Tied to this was the lecturer's responses on institutional resources, doctorate programmes enrolment and Completion rates. This was collated and presented in table 4.18

Table 4.18 Lecturers' Responses on Institutional Resources, Doctorate Programmes Enrolment and Completion Rates

S/No	Item	Strongly Agree		Agree		Disagree		Strongly Disagree	
		N	%	N	%	N	%	N	%
1	There is sufficient physical facilities in the universities	8	9.88	5	6.17	27	33.33	41	50.62
2	Inadequate access to ICT materials have also hindered access to information	10	12.35	9	11.11	19	23.46	43	53.08
3	Funding for doctorate students is inadequate for public universities.	34	41.98	28	34.57	13	16.04	6	7.41
4	There is insufficient number of qualified lecturers in the schools to mount doctorate programmes	45	55.56	20	24.69	7	8.64	9	11.11
5	Academic members of staff are funded to attend academic conferences	28	34.57	26	32.10	12	14.81	15	18.52
6	The universities host high indexed and quality peer reviewed journals with regular publications	44	54.32	21	25.93	11	13.58	5	6.17
7	There are International linkages and collaborations on doctorate programmes	38	46.91	29	35.80	10	12.35	4	4.94
8	There are readily available scholarships for those who want to pursue doctorate degree programmes.	8	9.88	13	16.05	27	33.33	33	40.74

Sources: Fieldwork Analysis (2019)

Table 4.18 is a summary of the lecturers' responses on the institutional resources influencing enrolment and completion rates of the doctorate degree programmes. Eight (8) items were presented for them to comment on. Lecturers were asked to comment on the sufficiency of the physical facilities such as the library space and office space. 50.62% of the respondents strongly disagreed while 33.33% disagreed with the

statement. Those who agreed and strongly agreed were 6.17% and 9.88% respectively. Lecturers noted that universities have made strides in establishing modern libraries. However, those libraries are not sufficiently stocked with latest reading materials for doctorate programmes. Lecturers also decried on office space which seemed to be a challenge to most of them. This hindered their operations which need to be carried out from the office. Carrying students' theses along with them was risky as cited by some lecturers.

The office space is a challenge for me. I share the tiny space allocated to me with my colleagues. Sometimes I am compelled to meet the students in my car or along the university corridors. My car is a small library as it carries books and student theses. They are never secure and sometimes I misplace crucial documents..... No option I must continue working'' A lecturer at University D (RL/15/CS/FE/DU)

Lecturers were asked to comment on whether Information Communication and Technology (ICT) was inadequately established thus hindering access to online learning materials. 53.08% of the lecturers strongly disagreed while 23.46% disagreed with the statement. They observed that universities have invested in ICT infrastructural development however; internet connectivity was low and in most cases down time was frequent affecting the sites which host materials for doctorate programmes. These findings are supported by Nyangau (2014) who established that inadequate teaching and learning facilities in public universities have been perpetually manifested through lack of adequately installed computer laboratories which restrict students from current source of information. This especially occurs whenever there are internet interruptions

due to connectivity fluctuations. They further noted that universities have subscribed to several online materials. They demonstrated this through logging on into subscribed journals. Funding for doctorate students was also put to the respondents to comment on, 41.98% of the lecturers strongly agreed while 34.57% agreed that universities are facing serious funding challenges for doctorate students. Most candidates for these programmes fund their studies which may explain why they take long to complete their studies. This is in agreement with Mukhwana et al. (2016) who established in a study on the 'State of Postgraduate Research and Training in Kenya' that public universities have a serious challenge in providing scholarships for growing number of the doctorate students. They established that there are fewer scholarships programmes in form of tutorial fellows and graduate assistants positions which is part of staff development schemes. In addition, the respondents were asked to comment on the number of academic staff in their universities. 55.56% strongly agreed while 24.69% agreed that universities were seriously understaffed with qualified academic members of staff. They observed that they are overworked citing teaching both undergraduates and postgraduates, undertaking administrative responsibilities and supervising the postgraduate students. When asked whether academic members of staff are funded by universities to attend academic conferences, 34.57% strongly agreed while 32.10% agreed that indeed they are facilitated to attend conferences. They however noted that the funding has been dwindling over time. During an interview, a lecturer from the University A observed that;

Funding is now a big time challenge in the universities. You know well that public universities are funded from the government ex-chequer. Yet, over time, the same government

has been reducing capitation while the number of students remain the same. I tell you that from where I sit, university education has never been a priority to the government. In simple terms, universities are indeed paining. Doctorate students could be worst hit by this.” (RL/13/CS/FE/UA)

The finding from the research are consistent with Gudo (2016) who established in a study that insufficient funding facing universities has led to acute shortage of basic learning resources, qualified academic staff and inherent weaknesses on administration. This is supported by Zeleza (2019) who asserts that most Kenyan universities are bankrupt and unable to perennially meet their basic financial needs. This thus points to a serious challenge facing public universities in mounting quality doctorate programme studies.

Furthermore, 46.91% of the respondents strongly agreed that universities host high indexed peer reviewed journals while 35.80% agreed with that. They underscored that this has helped doctorate students to publish which is a requirement before they can be conferred with their degrees. On whether universities had international linkages and collaborations, 46.91% strongly agreed while 33.33% agreed and confirmed that the existence of these collaboration has exposed them well. The two items are consistent with studies which have been carried out on the importance of journals and linkages. Gudo (2016) in a study established that research output is felt in the academia when it is published. The publication will expose the researchers to a third eye who will objectively critique and the outcome is of benefit to the academia and the general economy.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents a summary of the findings from the study. This has been presented in line with study objectives. It further presents the conclusions and recommendations as informed by the findings. Lastly, suggestions for further studies have been given.

5.2 Summary of Findings

5.2.1 Trends in Doctorate Programmes Enrolment and Completion (2003-2017)

The first research objective was to establish trends in doctorate programmes enrolment and completion rates from the selected universities covering the period of study between 2003 and 2017. A review of the admission criteria established that there are two alternatives to admission into a doctorate degree programme; the first one is known as doctorate programme through course work. This was meant for those doctorate programmes which have both course work and thesis. The second alternative is dubbed doctorate degree through thesis only. This alternative demands that the doctorate candidate first write a concept paper which will be used to identify the student's area of study. This is then used as a basis to assign the supervisors based on the expertise in the area. The study established that most doctorate programmes in the selected universities followed the first alternative which entails both course work and thesis. The explanation given was that coursework will ground the doctorate candidate more on research skills when compared to thesis alone.

There were, a total of 3,219 candidates enrolled for various doctorate degree programmes in the four selected universities between the year 2003 and the year 2017. Data showed that enrolment into doctorate degree programmes in the selected public universities was not uniform. The obtained admission data indicated the highest percentage of the doctorate students who took part in the study fall between 40-49 years. The study established that most people were not in hurry to enroll for doctorate degrees after completing their masters. They cited the reason of seeking for employment and settling down in life.

Trends in terms of enrolment and completion rates are on an upward trajectory. The highest growth in all four sampled universities was between 2008 and 2013. This was attributed to emphasis from the Ministry of Education through the Commission for the University Education (CUE) that only individuals who were doctorate holders could be allowed to lecture at the university level. There was low enrollment in 2014 and increased in 2016 and dropped again in 2017. In terms of gender, more males than females enrolled for doctorate programmes during the period under review.

Doctorate programme completion rates indicated that a total 1,470 earned their doctorate degrees from those enrolled during the same period of study. This represents 45.67% completion rates during this period. The number of candidates completing doctorate degrees was reducing from 2015. This was interpreted to mean that majority of doctorate candidates at this level are still writing their final thesis having completed their course work requirements by universities and or defended their proposals at

various levels as required by the universities. The average completion rate during the period of study was 44.51%. This falls below the expected average of 50.00% or more. Completion rates between 2003 and 2017, a period of eleven (15 years) fluctuated in between 23.95% and 54.01%. This means that enrollment and completion rates for doctorate programmes in Kenyan public universities is really wanting.

5.2.2 Institutional Doctorate Programme Procedures Influencing Enrolment and Completion Rates

The second objective sought to assess how institutional doctorate programme procedures influence doctorate enrolment and completion in selected Kenyan public universities. The analysis indicated a 13.6% positive change in doctorate enrollment and completion rates in the selected universities. This took place because universities improved on their doctorate programme procedures thus stimulating the change. 41.04% of the respondents agreed that universities were involved in doctorate programme marketing through various modes. Respondents singled out universities' marketing through referrals by those who already graduated from those universities as the best information platforms on joining doctorate programmes in their respective universities. They also noted that the admission process took unnecessarily long which hindered many prospective candidates from joining doctorate programmes. Further, the roles of the postgraduate boards or schools were perceived as being not adequate.

Students' supervision was singled out as a major issue influencing doctorate programme studies. Respondents agreed that there are insufficient qualified doctorate programme

supervisors in the universities. Most of the supervisors were either teaching undergraduate or performing administrative duties such as being heads of departments, postgraduate leaders at the department and deans of schools among others which impacted on their doctorate supervision responsibilities. Some supervisors raised concerns of their co-supervisors not contributing to the supervision process. Furthermore, doctorate programme student cited lack of agreement among the supervisors leaving the supervisee in a limbo.

Both the doctorate students, lecturers and graduate schools were dissatisfied with doctorate enrollment and completion rates at their universities. They further observed that doctorate candidates mentoring programmes were inadequate. They argued that Departmental and School/ Faculty orientation process has been left to administrative assistants which lead to communication breakdown in most instances. They argued that universities ought to put in more efforts to not only retain doctorate students in various programmes but also firm up their mentoring processes. This could be achieved through integrating them into activities of the Departments and Schools. They mentioned attending academic conferences and seminar papers presentation as key areas which will help in developing doctorate students. The inadequacy of the academic staff, the heavy workload and responsibilities they perform further is detrimental to doctorate studies in Kenya. They therefore recommended that universities need to strive to improve on the numbers of qualified academic staff members. Further, they argued that doctorate programme policies require to be revised from time to time to accommodate new developments and knowledge frontiers.

5.2.3 Institutional Doctorate Supervision Practices Influencing Completion Rates

The third objective was to establish how institutional doctorate degree programme supervision practices influence doctorate completion rates in selected Kenyan public universities. The study result indicates that institutional doctorate supervision practices had significant impact on doctorate enrolment and completion in selected public universities in Kenya.

Despite the rising numbers in enrolment, many students take long to complete while others drop out of the doctorate programme thus bringing into sharp focus of the efficiency of such programmes. The study found out that doctorate candidates are confronted by various hurdles key among them being ineffective doctorate programme students' supervision. This is coupled with poor supervisor knowledge transfer and mentoring process which result to delays and frustrations experienced by doctorate students. The study also noted that the mentioned challenges are not unique to Kenyan public universities. This was found to be a replica of what confronts most doctorate programme students globally. The study found out that most universities globally and regionally are making strides towards improving doctorate programmes study's environment.

Doctorate students and lecturers were in agreement that good rapport between students and their supervisors was critical. Good rapport enhanced participation and the consequence of such engagement is high completion rates. The willingness and intrinsic motivation on the side of the supervisor to mentor the doctorate student was

perceived as being critical in the thesis writing process. It was found out that improper student guidance on thesis topic selection may lead to delay in the thesis writing process. This was coupled with inadequate supervisor –student contact time. Supervisors complained of being overworked and poorly remunerated which affects their motivation. The doctorate students further observed that supervisors sometimes feel bothered by students. They cited an arrogant attitude meted by the supervisors as something that kept them at bay hindering their progress in thesis writing process.

During interviews, doctorate students observed that some of their supervisors use inappropriate language which border on insults to address them. They noted that they want to force them to undertake particular studies which are not part of their interest. Doctorate students' singled out conflict with their supervisors if they raised challenges they faced under their supervision. Both the students and lecturers agreed that there is need to revise doctorate programme supervision policies across universities. They observed that through revision of these policies, the insecurity experienced by doctorate programme students who fear reprisals from their supervisors would be eliminated.

In relationship with mode of study, majority of the respondents supported that it has a direct impact on student's doctorate programme completion. When interviewed most of the doctorate students observed that they were tutorial fellows, research assistants or teachers. Those working as tutorial fellows complained of having been assigned a lot of responsibilities which reduced the time they spent in doing their studies. Teachers preferred school-based programmes to pursue their doctorate programmes. Besides,

they had responsibilities at their place of work as well as family obligations. Further to this, the study established that the reasons for a doctorate student's choice to exit a doctorate programme are a multifaceted affair. Through interviews, they cited issues related to work, family and personal challenges. They also cited the departmental and school established cultures on doctorate candidate supervision as being among the greatest obstacles to completion. They emphasised that challenges related to thesis supervision relationship often contribute to the candidate's decision to quit their doctorate programme.

On whether schools and departments undertook mentoring programmes, majority of the respondents agreed that they were involved in mentorship programmes such as presenting conference papers and how to write proposals. Similarly, many of the doctorate students rated the supervisors' motivation as extremely poor. This was linked to a question of how long the supervisors took to respond to their work where a high number of respondents stated that it took long for them to respond to their work. Lecturers observed that that time is often very limited and there is often a lot of work to do, coupled with masters and doctorate dissertations, there is hardly enough time. They noted that the student-faculty ratio was way beyond the recommended ratio.

It is clear that from the staff establishment records, the number of professors is the least followed by lecturers while the tutorial fellows formed the largest portion of the universities' teaching staff. It stands out clearly that the highest numbers of the teaching staff are the tutorial fellows in the selected public universities in Kenya which could be

a replica of all other public and private universities in Kenya. This finding indicates that the staffs at the public universities are way below the expected standards.

5.2.4 Institutional Doctorate Resources Influencing Enrolment and Completion Rates

The fourth objective of the study was to explore the extent to which institutional resources influence doctorate degree enrolment and completion in selected Kenyan public universities. The study found out that there was a strong relationship between institutional resources and doctorate degree enrolment and completion rates in public universities.

When asked about the availability of the physical facilities such as library space, doctorate students commended universities for their effort to create a reading section for postgraduate students. However, they were concerned with lack of control for such spaces since undergraduate students mostly occupy them. Through interviews, doctorate students noted that there is insufficient availability of recent publications works in the libraries. They observed that some books are obsolete yet they were listed as critical resources in their studies. Doctorate students also complained of critical information missing on the universities online libraries.

On information Communication and Technology, respondents applauded the universities for embracing this facet of learning but noted with concern that universities are not repairing available internet ports earnestly, internet downtime is frequent which

may be a hindrance to information retrieval. However, lecturers noted that universities have made strides in establishing modern libraries. However, those libraries are not sufficiently stocked with latest reading materials for doctorate programmes. Lecturers also decried on shortage of office space which seemed to be a challenge to most of them. This hindered their operations thereby forcing them to conduct such responsibilities out from the office. Carrying students' theses along with them was risky as cited by some lecturers.

On funding for doctorate studies, the students noted that there is acute shortage of funding for doctorate programme studies in Kenyan public universities. Universities lack proper budgets to fund doctorate programme studies. Majority of the of doctorate programme students who responded to this item confirmed that they fund their studies. This may explain the long time taken to complete doctorate degree Programme. This is because, students have to work to fund their studies. This findings were supported by the lecturers who were interviewed from the universities.

Students may drop on the way when they realize that the additional qualifications gained through acquisition of the doctorate degree may not increase their earnings. They were to comment on the availability of qualified faculty to run the doctorate programme. They agreed that the faculty to doctorate student is wanting in Kenyan public universities. Lecturers are assigned more responsibilities and therefore lack sufficient and quality time to dedicate to doctorate students. This explains why it takes them long to give feedback to the students work.

5.3 Conclusion of the Study

The study draws the following conclusions; Firstly, that doctorate students' progression trends from selected public universities in Kenya during the period under study revealed low doctorate student enrolment and completion rates. This was shown by the numbers of those who enrolled and those who graduated. The findings established that doctorate programme procedures, institutional doctorate resources, doctorate supervision practices account for variations of enrolment and completion rates.

Secondly, more male than females were enrolling and completing their doctorate programmes. It was concluded that years which experienced high enrollment and completion rates were when the Commission for University Education made pronouncement that it was mandatory to have a doctorate degree to lecture in Kenyan universities. This explained the surge between 2008 and 2013 of those who enrolled and completed from these public universities.

Thirdly, the study concluded that institutional doctorate programme procedures influence enrolment and completion in selected Kenyan public universities. This is so since universities have policies that guide their doctorate programmes despite being regulated by Commission for University Education in Kenya. These doctorate programme procedures have influenced students' progression rates and thus policies such as doctorate mentorship and supervision need to be standardized. From the findings, the study concluded that doctorate programme policies and inadequacy of qualified academic supervisors are a major hindrance. This is a serious impediment

since supervisees will hardly get contact time with supervisors. This will contribute to prolonged time doctorate students will take to graduate and indirectly lead to low completion rates. Furthermore, insufficient relevant reading materials and low ICT connectivity which support thesis writing process will lead to prolonged time to doctorate graduation and low completion rates.

Fourthly, the study concluded that institutional doctorate supervision practices influence doctorate degree programme completion. Qualified supervisors were found to be inadequate while coupled with heavy administrative responsibilities besides teaching loads. This greatly affected their availability for doctorate students. The study further concluded that supervisors are poorly remunerated which has affected their motivation. The study also concluded that cordial supervisor-supervisee relationship will help the doctorate student to navigate through the doctorate programme successfully. That effective supervision is critical in guiding doctorate programme study progress. Through improving supervisory approach, supervisors will definitely bolster the doctorate study process.

5.4 Recommendations from the Study

5.4.1 Study's Policy Recommendations

There is an urgent need for the state agencies charged with the responsibility of offering support to doctorate programme studies in Kenya to greatly improve their operations to

include readily financial support for those pursuing doctorate programmes. This will boost doctorate persistence and completion.

There is need to standardize the institutional doctorate programme procedures. This will ensure that the supervisors, the institutions and the students work together in harmony following the laid down policies and procedures to complete their doctorate programmes within the specified period of time.

Doctorate supervision needs to be enhanced. Supervisors need to be better motivated through proper remuneration. Thesis examination process requires universities to set aside enhanced budget to cater for this. There is also need for universities to bolster principles that guide thesis development and the university should make it a policy for the two supervisors to meet together with the student like the way they meet in class for certain percentage of meetings for harmony and agreement between the two. The commission should also have policies that supervisors should follow to ensure that they produce candidates that are learned and they finish their theses in time.

5.4.2 Recommendation for Practice

The study recommends the following practices to various actors involved in doctorate education programmes;

- i) The universities offering doctorate programmes to enhance marketing strategies inclined towards boosting numbers. The use of doctorate programmes' alumni

could be the best entry practice. The higher enrolment into doctorate programmes would enhance completion rates.

- ii) Universities should bolster deliberate practices which foster social integration of doctorate students into schools and departments. Social support practices encapsulates functional relationship doctorate students would receive from both the academic and administrative staff at the departments and schools
- iii) The mentorship programmes as currently established in the universities are not robust in their endeavours. Departments and Schools to enhance doctorate programmes peer mentoring practices. Programmes which entail doctorate students' involvement in scholarly opportunities should be practiced. This would enhance their sense of connectedness with respective departments and schools. These include practical skills of carrying out research, compulsory guided seminar presentation skills and publishing in highly reputable peer reviewed academic journals.
- iv) The study observed that most doctorate students had challenges of funding their studies. The government of Kenya through universities ought to endeavour to triple scholarships availed to potential doctorate students. This would attract more people to enrol into various programmes and probably complete on projected timelines.
- v) The study established challenges related to doctorate programme thesis supervision. Lecturers complained of being overloaded by work. Universities should work towards employment of more qualified faculty members to boost

doctorate thesis supervision. This would facilitate timely response given to the students by the lecturers on their thesis progression. Furthermore, supervisors would have sufficient time to discuss the thesis with the supervisee closely than just sending comments.

5.4.3 Recommendation for Further Research

The study recommends the following areas to be researched on;

- i) This research concentrated on the institutional practices with regard to doctorate programmes in public universities. There is need to be extended to private chartered universities in Kenya to establish their current status on doctorate programmes enrolment and completion rates.
- ii) Further studies are also recommended on the doctorate funding models in Kenya and their influence on enrolment and completion rates. This is critical since prospective candidates will enrol for a doctorate programme when assured on how the studies will be funded.
- iii) Further research on emerging trends of supervision in doctorate programmes with a view of establishing the intricacies which influence choice of supervisor (s).
- iv) A further research be carried out to establish how doctorate programme students' supervision can enhance enrolments and stimulate completion rates.
- v) A study on quality assurance for doctorate programmes needs to be carried out with a view of establishing their influence on enrolment and completion rates.

5.4.4 The Study's Contribution to Knowledge

Towards knowledge contributions;

- i) The study established the trends in doctorate programme enrolment and completion rates in Kenyan public universities. This would help make informed choices on the best modalities of boosting this subsector of higher education in Kenya.
- ii) The study established that institutional doctorate programme procedures, doctorate programme supervision and institutional doctorate programme resources influence enrolment and completion rates at public universities.
- iii) The study established that Kenya has not met the threshold of the number of doctorates required at the universities to mount quality doctorate programmes to spur economic development in the country.

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APPENDICES

APPENDIX A

Questionnaire for Doctorate Programme students

This study is for academic purpose. It intends to establish the institutional practices influencing trends in enrolment and completion rates in doctorate degree programmes from Kenyan public universities. Kindly respond to the questions as candidly and precisely as possible. Your honesty and co-operation in responding to these questions will highly be appreciated with utmost confidentiality.

Please fill in the required information in the spaces provided or Tick () where necessary.

A) Background Information

1) (a) Institution_____

(b) Designation of the respondent_____

2) Marital status:

1. Single () 2.Married () 3.Separated () 4.Widowed () 5.Divorced ()

3) Gender: 1. Male () 2. Female ()

4) Age bracket in years

1. 18-28 years () 2. 29-39 years () 3. 40-49 years (). 4. Over 50 years ()

B) The nature of variables associated with doctorate programme enrolment and completion rates.

5) How did you learn about the doctorate programme you are enrolled in? (Tick appropriately)

S/N	Category	Tick
1	University Brochure	

2	University outreach programme	
3	University website	
4	Friends	
5	Advertisements	
6	Mentors	

6) What was the motivation behind your enrolment for the doctorate programme?

1. Media () 2. Friends () 3. Employer's demand () 3. General desire for doctorate ()
5. No reason ()

7) What category of doctorate programme are you studying?

1. Humanities () 2. Sciences () 3. Social Sciences ()

8) How long did it take you to have your doctorate admission?

C) Institutional Doctorate Programme Practices and Enrolment and Completion

Rates

9) The following are items related to doctorate programme practices in your university.

Rate the items based on your knowledge of their practice in your university. Use the scale of 1-4, where 4=Strongly Agree (SA), 3=Agree (A), 2 Disagree (D) and 1=Strongly Disagree (SD)

S/ N	Item	SA	A	D	SD
1	Universities engage on a rigorous doctorate student recruitment process.				
2	The length of admission into doctorate programmes is long				
3	The role of graduate school is wanting				
4	Does the university have adequate staff to supervise doctorate students?				
5	Is the department satisfied with current doctorate enrolment and completion rate?				
6	Doctorate programme policies need to be revised.				
7	Doctorate students mentoring process is satisfactory?				

10) Briefly, describe any activities that your Department/School does and the extent of your involvement?

11) What is the channel of communication that you employ in relaying your concerns?

D) Doctorate Programme Supervision, Enrolment and Completion rates

12) How can you describe your relationship with your supervisor/s?

S/N	Category	Tick
1	Outstanding	
2	Excellent	
3	Friendly	
4	Disinterested	
5	Warm	
6	Encouraging	
7	Arrogant	

13) How often do you meet with your supervisor/s?

1. Weekly () 2. Once a Month () 4. None ()

14) Describe the availability of your supervisor.

1. Readily available () 2. Available () 3. Seldom available () 4. Not available ()

15) How long does it take the supervisor to read and respond to your work?

1. One week () 2. A month 3. Three months () 4. Does not read at all ()

16) The following are various items related to doctorate programme students' thesis supervision. You are required to rate them using the scale of 1-4 where 4=Strongly Agree (SA), 3=Agree (A), 2 Disagree (D) and 1=Strongly Disagree (SD).

S/N	Item	SA	A	D	SD
i.	Good rapport between supervisor and doctorate student is a critical element.				
ii.	Inadequate guidance on topic selection by supervisors may lead to delays				
iii.	There is need to increase the number of the faculty in the				

	schools to boost supervision				
iv.	Supervisors lack adequate contact time with the supervisee which may lengthen completion period				
v.	Doctorate programme policies need to be revised to reflect current needs				
vi.	Departments and schools need to enhance their mentoring skills				
vii.	The mode of study influences completion rates?				
viii.	Supervisors' motivation is poor.				
ix.	Supervisors take long to response to doctorate student's work				

E) Institutional Resources, doctorate programmes enrolment and Completion rates

17) What is the source of funding for your doctorate programme education? (Rank in probable order)

S/N	Means of financing doctorate course	Ranking (1—6)
1	Parents	
2	Guardian	
3	Self	
4	Well-wishers	
5	HELB	
6	CDF	
7	Scholarship	

Other (State).....

18) Which other responsibilities are you engaged in besides doctorate programme studies?

.....

.....

.....

20) Did you possess any research skills prior to enrolment for the doctorate programme?

1. Yes () 2. No ()

21) Which mode of study are you enrolled in your doctorate programme?

1. Regular () 2. School based () 3. Evening & Weekends () 4. ODEL ()

22) How do you rate the level of research and innovation in your University?

S/N	Level	Tick
1	Excellent	
2	Average	
3	Below average	

23) How many professors does your School and Department have?

i. School

ii. Department.....

24. Do what extent does the following influence doctorate programme enrolment and completion rates at your university. You are required to rate them using the scale of 1-4 where 4= Strongly Agree (SA), 3= Agree (A) 2= Disagree (D) and 1= Strongly Disagree (SD)

S/No	Item	SA	A	D	SD
1	There is sufficient physical facilities such as library space for doctorate students				
2	Inadequate access to ICT materials have also hindered access to information for doctorate students.				
3	Funding for doctorate students is inadequate for public universities.				
4	There is insufficient number of qualified academic members in the schools to enhance doctorate programmes				
5	Doctorate students are funded to attend academic conferences				
6	The universities host high indexed and quality peer reviewed journals with regular publications				
7	There are International linkages and collaborations				
8	The cost of doctorate programme is within the reach.				

9	Finding a doctorate programme scholarship is easy.				
10	It is easier to access off-campus e-resources				

25) Does your university/School/Department hold academic international conferences?

1. Yes () 2. No ()

26) How many refereed journals does your university host?

27)) What is your current status of employment?

1. Self-employed () 2. Not Employed () 3. Employed () 4.

28) In which ways do you think you can help your university in enhancing doctorate programme enrolment and completion rates?

.....

.....

APPENDIX B

Questionnaire for the University Administrators (Deans of Schools and Chairpersons of Departments)

This study is for academic purpose. It intends to establish the institutional practices influencing trends in enrolment and completion rates in doctorate degree programmes from Kenyan public universities. Kindly respond to the questions as candidly and precisely as possible. Your honesty and co-operation in responding to these questions will highly be appreciated and treated with utmost confidentiality.

Please fill in the required information in the spaces provided or Tick () where necessary.

A) Background Information

1) (a) Institution _____

(b) Designation of the respondent _____

2) Marital status:

1. Single () 2. Married () 3. Separated () 4. Widowed () 5. Divorced ()

3) Gender: 1. Male () 2. Female ()

B) Institutional doctorate programme practices

4) As a dean of the School, please rate the extent to which you agree with the following statements. You are required to rate them using the scale of 1-4 where 4= Strongly Agree (SA), 3= Agree (A) 2= Disagree (D) and 1= Strongly Disagree (SD)

S/N	Item	SA	A	D	S D
1	The school is adequately staffed with academic members.				
2	The length of admission into doctorate programmes is long				

3	Graduate school is satisfied with current enrolment and completion rates?				
4	The school keeps proper records of student's progression to graduation				
5	Doctorate programme policies need to be revised to reflect the current trends in education				
6	You are satisfied with doctorate students mentoring process?				
7	There is adequate orientation and involvement in school and departmental programmes and activities?				
8	The mode of study influences completion rates?				

5. Briefly state the procedure of enrolling a student into a doctorate programme.

.....

.....

6) Rate the extent to which the doctorate programmes in your university match the following items. Use the scale of 1-4 where 4= Strongly Agree (SA), 3= Agree (A) 2= Disagree (D) and 1= Strongly Disagree (SD)

S/N	Item	SA	A	D	S D
1	The doctorate degree programme meet the need of the beneficiary students?				
2	The doctorate degree programme is responsive to the need of the economic growth of the country?				
3	The doctorate degree programmes are beneficial to the university's research mandate.				

7. How often does your University enroll doctorate programme students?

S/N	Category	Tick
1	Often	
2	Not often	
3	None	

8. How many doctorates has your university graduated in the last fifteen years?

S/N	Category	Tick
1	1-50	
2	51-100	
3	101-151	
4	151-200	
5	Over 200	

9. On average, how long does it take one to graduate with a doctorate?

1. 3years () 2. 4years () 3.5 years () D. 4 years () 5. Over seven years 6.

C. Institutional Doctorate programme Students' supervision, enrolment and completion rates

10) Using a scale of 1-4, kindly rate the extent to which you agree with the following items on doctorate programme students' supervision in your university. The key to the scale is as follows: 4= Strongly Agree (SA), 3= Agree (A) 2= Disagree (D) and 1= Strongly Disagree (SD)

S/N	Item	S A	A	D	S D
1	Good rapport between supervisor and doctorate student is a critical element.				
2	Inadequate doctorate student guidance on topic selection, concept paper writing and proposal development by supervisors may lead to delays				
3	There is need to increase the number of qualified lecturers in the school to boost supervision				
4	Supervisors lack adequate contact time with the supervisee which may lengthen completion				
5	Doctorate programme policies need to be revised to reflect current needs				
6	Departments and schools need to enhance their doctorate				

	programmes mentoring skills				
7	Influences of mode study to completion rates				
8	Supervisors' motivation is poor.				
9	Lecturers are overwhelmed by duties besides doctorate supervision				
10	Doctorate Students don't take supervision instructions seriously				
11	Students take long to respond or sometimes disappear completely.				

11. How many of your teaching staff have doctorate degrees?.....

12. What is the category of your lecturers who supervise doctorate programme students?

S/N	category	Tick
1	Permanent	
2	Contract	
3	Part timers	

13. How do you rate the level of research and innovation in your University?

S/N	Level	Tick
1	Excellent	
2	Average	
3	Below average	

14. How many doctorate programme students can a single supervisor guide?

1. 3 () 2. 5 () 3. Over 5 ()

15. What tracking mechanisms do you have in place for doctorate programme student and supervisors?

16. What is the range of cost per doctorate programme?

Doctorate Programme	Range of cost
Humanities	

Sciences	
Social Sciences	

D. Institutional Doctorate programme Resources, enrolment and completion rates

17. The following items relate to your university's endowment of resources with regard to doctorate programmes. In a scale of 1-4, kindly indicate the extent to which you agree or disagree with them. The key to the scale is as follows; 4= Strongly Agree (SA), 3= Agree (A) 2= Disagree (D) and 1= Strongly Disagree (SD)

S/N	Item	SA	A	D	SD
1	There is sufficient physical facilities such as library space for doctorate students				
2	Inadequate access to ICT materials have also hindered access to information for doctorate students.				
3	Funding for doctorate students is inadequate for public universities.				
4	There is insufficient number of qualified academic members in the schools to enhance doctorate programmes				
5	Doctorate students are funded to attend academic conferences				
6	The universities host high indexed and quality peer reviewed journals with regular publications				
7	There are International linkages and collaborations				
8	The cost of doctorate programme is within the reach.				
9	Finding a doctorate programme scholarship is easy.				
10	It is easier to access off-campus e-resources				

18. Do you have any policy document guiding doctorate programme studies in your Department/school? Briefly explain how it works.....

19. Who funds the doctorate education programme for your students? Tick appropriately.

S/N	Item	SA
1	Government	
2	Self	
3	International Agencies	

Other? Please name it.....

20. Besides teaching and supervision, what other responsibilities do you have in your university? (Tick appropriately)

S/No	Responsibility	Tick
1	Departmental Head/Chair	
2	Dean of the School/Faculty	
3	Coordinator, Examination	
4	Coordinator, programmes	
5	Coordinator, Teaching Practice/Practicum	
6	Postgraduate, Coordinators	

Other responsibility? State.....

21. What strategies have you put in place as a school to enhance doctorate education?.....

.....

.....

APPENDIX C**Interview Schedule for doctorate programme students**

1.(a)

Institution/University:_____

(b) Doctorate programme enrolled:_____

2. What is your opinion on the process of admitting students into doctorate programmes?

3. If you were given a chance to enroll for a doctorate programme, would you enroll in your current university?

4. What type of academic activities does your Department/School engage in?

5. How involved are you in those activities?

6. Is there any form of mentorship activities done in your Department/school?

7. Have you ever attended any academic conference in course of your doctorate programme studies?

8. How soon were you assigned doctorate programme thesis supervisors?

9. Are the supervisors' experts in your area of study?

10. How long did you take to formulate your thesis topic?

11. Were you helped in any way to come up with the topic?

12. Do you think you possess the requisite skills of writing a doctorate thesis?

13. How could you explain the existing relationship with your doctorate programme supervisors?

14. How long does it take your supervisors to give back comments on your work?

15. Have you ever had a common meeting with both of your doctorate programme thesis supervisors?

16. How long does it take you to respond to your supervisors' comments?

17. What is your opinion on the sufficiency of the number of those supervising doctorate programme thesis?

18. How available is your doctorate programme supervisors?

19. Comment on the availability of institutional resources that support doctorate programme studies.

20. Are you aware of any existing doctorate programme policies within your university?

21. Briefly explain in your understanding whether the role of postgraduate school/board is well articulated?

22. Are you satisfied with the pace of your doctorate programme studies?

23. Comment on the overall doctorate programme enrolment and completion rates of your university.

24. What recommendations can you make to your university regarding doctorate programme education?

Finally, thank you for taking your time to engage in this interview.

APPENDIX D**Interview Schedule for Lecturers**

1 (a) Institution: _____

(b) Department _____

(b) Designation: _____

2) What is your opinion on the criteria used in admitting students into doctorate programmes in your university?

3) What is your opinion on the current enrolment of doctorate students in public universities in Kenya?

4) What are some of Departmental/School academic activities that you organise?

5) How do you involve doctorate programme students in those academic activities?

6) How many peer refereed journals does your university host?

4) Comment on the rate at which public universities are graduating doctorates in Kenya.

5) How do you evaluate the role of supervision in doctorate programmes?

6) How many students are currently supervising both masters and doctorate?

7) Do you have any other responsibilities besides teaching and doctorate supervision?

8) Do you receive any payment for doctorate programme thesis supervision?

9) What is your opinion on the nature of students enrolled for doctorate programmes?

10) Comment on physical infrastructure of public universities with regard to doctorate education?

11) What challenges are experienced in doctorate education in public universities in Kenya?

12) What recommendations can you make to enhance doctorate education in Kenyan public universities?

APPENDIX E

Guide to Analysis of Key Documents

Dear Respondent,

I am Motanya, Jared Ochwangi, a doctorate programme student at Kenyatta University.

I am undertaking a doctorate study entitled, *“Institutional Practices Influencing Trends in Enrolment and Completion Rates in Doctorate Degree Programmes from Selected Public Universities in Kenya”* You are requested to spend few minutes of your time to respond to the items listed in this instrument. Your response will be treated with the utmost confidentiality.

1. Kindly indicate the number of doctorate programme students enrolled in your department/school against the year listed.

Year	Department/School	Mode of Study				Totals
		Regular	Part Time(evening and Weekend)	ODEL	School Based	
2003						
2004						
2005						
2006						
2007						
2008						
2009						
2010						
2011						
2012						
2013						
2014						
2015						
2016						
2017						

2. Kindly indicate the number of those who have graduated from your Department/School with doctorate degrees against the years indicated.

Year	Department	Male	Female	School	Male	Female	Totals
2003							
2004							
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							

3. Kindly indicate the number of full time members of the academic staff in your department/school against the year indicated

Year	Department	Male	Female	School	Male	Female	Totals
2003							
2004							
2005							
2006							
2007							
2008							
2009							
2010							
2011							
2012							
2013							
2014							
2015							
2016							
2017							

APPENDIX F

Researcher's Introductory Letter

JARED MOTANYA

KENYATTA UNIVERSITY

DEPARTMENT OF EDUCATIONAL FOUNDATIONS

P.O. BOX 43844 – 00100 GPO

NAIROBI

DATE: _____

Dear Sir/ Madam,

I am post graduate student at Kenyatta University pursuing a Doctor of Philosophy degree (Doctorate). I am undertaking a research study in the field of Educational Foundations. My research topic is “**Institutional Practices Influencing Trends in Enrolment and Completion Rates in Doctorate Degree Programmes from Selected Public Universities in Kenya**” You have been chosen to participate in this study. Your co-operation in answering the questions faithfully will be highly appreciated. All data collected will be treated with utmost confidentiality and will be used only for the purpose of this study. Thank you in participation.

Yours faithfully,

MOTANYA, JARED, O.

DOCTORATE. STUDENT (RESEARCHER)

REG. NO. E83/23424/12

APPENDIX G

Permission for Data Collection Egerton University

<p>EGERTON P.O. Box 536 -20115 Egerton, Kenya</p>		<p>UNIVERSITY Tel: +254-51-2217801/808 +254-51-2217891/2 Cell: 0708489256 0775015388 Fax: +254-51-2217942 E-mail: dvc@egerton.ac.ke</p>
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**OFFICE OF THE DEPUTY VICE - CHANCELLOR
RESEARCH AND EXTENSION**

EU/DVC/RE/089 **6th March, 2020**

Jared O. Motanya
P. O. Box 79831-00200
NAIROBI

RE: PERMISSION TO COLLECT DATA AT EGERTON UNIVERSITY

Reference is made to your letter dated 3rd March, 2020, requesting for authority to collect data at Egerton University for your research study entitled: *Institutional Practices influencing Trends in Enrolment and Completion Rates in Doctorate Programme from Selected Public Universities in Kenya*.

Authority is hereby granted for you to collect data in Egerton University from the Deans of Faculty of Education and Community Studies, Arts and Social Sciences and Faculty of Science. It is expected that this research is purely for academic purposes and will not be used otherwise. Upon completion of the study please ensure that you provide a copy of the report for our retention.




Prof. Nancy W. Mungai, Ph.D
**AG. DIRECTOR (RESEARCH AND EXTENSION)
FOR: DEPUTY VICE-CHANCELLOR (RESEARCH & EXTENSION)**

cc: Registrar (AA), Director (BPGS), Dean FEDCOS, Deans FASS, Dean Faculty of Science,
AWM/aa

"Transforming lives through Quality Education"

APPENDIX H

Permission for Data Collection Kenyatta University



KENYATTA UNIVERSITY

OFFICE OF DEPUTY VICE-CHANCELLOR, RESEARCH, INNOVATION
AND OUTREACH

Ref: KU/DVCR/RCR/VOL3/292

Mr. Jared Motanya
School of Education
KENYATTA UNIVERSITYP. O. Box 43844 – 00100
Nairobi, Kenya
Tel, 254-20-810901 Ext. 026
E-mail: dvc-rio@ku.ac.ke12th March, 2020

Dear Mr. Motanya,

RE: REQUEST TO COLLECT RESEARCH DATA AT KENYATTA UNIVERSITY

This is in reference to your letter dated 3rd March, 2020 requesting for authorization to collect research data at Kenyatta University on the topic **"Institutional Practices Influencing Trends in Enrolment and Completion Rates in Doctorate Programmes from Selected Public Universities in Kenya"** towards the PhD Degree of Kenyatta University.

I am happy to inform you that the Vice-Chancellor has approved your request to collect data. It has been noted that your data will be collected from Schools and Departments under the Academic Division .

Yours Sincerely,


Prof. F. G. Gravenir
Deputy Vice-Chancellor
Research, Innovation & Outreach
cc, Vice-Chancellor
DVC, Academic

APPENDIX I

Permission for Data Collection Moi University



MOI UNIVERSITY

OFFICE OF THE DEPUTY VICE CHANCELLOR
(ACADEMICS, RESEARCH AND EXTENSION)

Tel: (053) 43355
(053) 43620
Fax: (053) 43412
Email: dvc_ars@moi.ac.ke or dvcarsmou@gmail.com

P.O. Box 3900
Eldoret - 30100
Kenya.

REF: MU/DVC/REP/27B

Date: 5th March, 2020

TO WHOM IT MAY CONCERN

RE: PERMISSION TO CARRY OUT RESEARCH – JARED OCHWANGI
MOTANYA

The above subject matter refers.

Mr. Jared O. Motanya who is a Ph.D. student at Kenyatta University, Department of Educational Foundations has applied for authority to carry out research at Moi University in the following Schools: Education, Arts & Social Sciences and Biological & Physical Sciences. We would be grateful if he is permitted to conduct his research on *"Institutional Practices Influencing Trends in Enrolment and Completion Rates in Doctorate Programmes from Selected Public Universities in Kenya"*.

By a copy of this letter authority is hereby granted to him to conduct the research.

After the completion of the research, a complete report both on hard and soft copy will be handed over to the office of Deputy Vice-Chancellor, Academics, Research & Extension.

Any assistance accorded to him will be highly appreciated.

Thank you.

Yours faithfully,

PROF. I. N. KIMENGA, Ph.D.
DEPUTY VICE-CHANCELLOR
(ACADEMICS, RESEARCH & EXTENSION)

03/04/20



APPENDIX J
Permission for Data Collection University of Nairobi



UNIVERSITY OF NAIROBI
OFFICE OF THE DEPUTY VICE - CHANCELLOR
(Research, Innovation & Enterprise)

P.O. Box 30197-00100
 Nairobi, Kenya
 Telephone: +254-20-4910000, Ext 28711
 +254-020-4913164 (DL)

Email: dvcnie@uonbi.ac.ke
 Website: www.uonbi.ac.ke

UON/RPE/3/5/

March 9, 2020

Jared Ochwangi Motanya
 PO Box 79831-00200
 NAIROBI
 0724875351
jaredmotanya@gmail.com

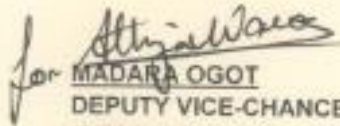
Dear Mr. Motanya

PERMISSION TO COLLECT DATA

I refer to your request to collect data at the University of Nairobi, for your project entitled: *"Institutional Practices Influencing Trends in Enrolment and Completion Rates in Doctorate Programmes from Selected Public Universities in Kenya"*

I write to inform you that your request has been approved.

You are however required to share the findings of your study with the University of Nairobi by depositing a copy of your research findings with the Director, Library & Information Services on completion of your study.

for 

MADARA OGOT
DEPUTY VICE-CHANCELLOR
(RESEARCH, INNOVATION AND ENTERPRISE)
AND
PROFESSOR OF MECHANICAL ENGINEERING

Copy to: Director, Library and Information Services

/jwn

APPENDIX K
Ethical Permission from Kenyatta University



Kenyatta University
P.O Box 43844-00100
Nairobi-Kenya

REF: KU/ERC/APPROVAL/VOL1/1

Date: 2nd March, 2020

Motanya, Jared Ochwangi
P.O Box 43844-00100
NAIROBI

Dear Mr. Ochwangi

**RE: APPLICATION NUMBER: PKU/2070/I1217 INSTITUTIONAL PRACTICES
INFLUENCING TRENDS IN ENROLMENT AND COMPLETION RATES IN
DOCTORATE PROGRAMS FROM SELECTED PUBLIC UNIVERSITIES IN KENYA**

This is to inform you that **KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE** has reviewed and approved your above research proposal. Your application approval number is **PKU/2070/I1217**. The approval period is **2nd March, 2020 – 2nd March, 2021**.

This approval is subject to compliance with the following requirements;

- i. Only approved documents including (informed consents, study instruments, MTA) will be used
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by **KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE**.
- iii. Death and life threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to **KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE** within 72 hours of notification
- iv. Any changes, anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to **KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE** within 72 hours
- v. Clearance for export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days upon completion of the study to **KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE**.

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

Yours sincerely



Prof. Judith Kimiywe

CHAIRPERSON- KENYATTA UNIVERSITY ETHICS REVIEW COMMITTEE.



APPENDIX L

Research Authorisation from Kenyatta University



KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: dean-graduate@ku.ac.ke

Website: www.ku.ac.ke

OUR REF: E83/23424/12

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 8710901 Ext. 57530

Date: 18th February, 2019

The Director General,
National Commission for Science, Technology & Innovation
P.O. Box 30623-00100,
NAIROBI

Dear Sir/Madam,

RE: RESEARCH AUTHORIZATION FOR MR. JARED O. MOTANYA REG. NO. E83/23424/12

I write to introduce Mr. **Motanya** who is a Postgraduate Student of this University. He is registered for Ph.D. Degree programme in the **Department of Educational Foundations in the School of Education.**

Mr. **Motanya** intends to conduct research for Ph.D. Thesis entitled, **"Institutional Practices Influencing Trends in Enrolment and Completion Rates in Doctorate Programmes from Selected Public Universities in Kenya"**

Any assistance given will be highly appreciated.

Yours faithfully,


PROF. ELISHIBA KIMANI
DEAN, GRADUATE SCHOOL

RM/cao

APPENDIX M

NACOSTI Research Authorisation Letter



**NATIONAL COMMISSION FOR SCIENCE,
TECHNOLOGY AND INNOVATION**

Telephone: +254-20-2213471,
2241349,3310371,2219430
Fax: +254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 20623-00100
NAIROBI-KENYA

Ref. No. **NACOSTI/P/19/72691/28660**

Date: **13th March, 2019**

Jared Ochwangi Motanya
Kenyatta University
P.O. Box 43844-00100
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on "*Institutional practices influencing trends in enrolment and completion rates in doctorate programmes from selected public universities in Kenya*" I am pleased to inform you that you have been authorized to undertake research in **selected Counties** for the period ending **12th March, 2020.**

You are advised to report to the **Vice Chancellors of selected Universities, the County Commissioners and the County Directors of Education of the selected Counties** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit a **copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.



**GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO**

Copy to:

The Vice Chancellors
Selected Universities.

The County Commissioners
Selected Counties.

APPENDIX N

NACOSTI Research Authorization Permit

THIS IS TO CERTIFY THAT:
MR. JARED OCHWANGI MOTANYA
of KENYATTA UNIVERSITY, 0-200
NAIROBI, has been permitted to conduct
research in Kiambu , Kisumu , Nairobi,
Nakuru , Uasin-Gishu Counties

Permit No : NACOSTI/P/19/72691/28660
Date Of Issue : 13th March,2019
Fee Recieved :Ksh 2000

on the topic: INSTITUTIONAL
PRACTICES INFLUENCING TRENDS IN
ENROLMENT AND COMPLETION RATES
IN DOCTORATE PROGRAMMES FROM
SELECTED PUBLIC UNIVERSITIES IN
KENYA

for the period ending:
12th March,2020


Applicant's
Signature



Director General
National Commission for Science,
Technology & Innovation

APPENDIX O

Chartered Public Universities by order of Establishment

1	University of Nairobi
2	Kenyatta University
3	Moi University
4	Egerton University
5	Jomo Kenyatta University Of Agriculture And Technology
6	Maseno University
7	Masinde Muliro University of Science and Technology
8	Dedan Kimathi University of Technology
9	Chuka University
10	Technical University of Kenya
11	Technical University of Mombasa
12	Pwani University
13	Kisii University
14	University of Eldoret
15	Maasai Mara University
16	Jaramogi Oginga Odinga University of Science and Technology
17	Laikipia University
18	South Eastern Kenya University
19	Multimedia University of Kenya
20	University of Kabianga
21	Karatina University
22	Meru University of Science and Technology
23	Kirinyaga University
24	Taita Taveta University
25	Rongo University
26	Murang'a University
27	Garissa University
28	Co-operative University
29	Kibabii University
30	Machakos University
31	University of Embu