Management of Research in a Post-Graduate Institute: Quality Assurance Systems

Abstract

In this chapter, the authors delve into a comprehensive framework for research management within a postgraduate institute, specifically focusing on quality assurance systems. Drawing insights from the Uganda Management Institute (UMI), the authors are provided with an illuminating overview of the institute's research management and administration landscape. Beginning with an exploration of the background of UMI, research management, UMI research functions, and the diverse committees that underpin UMI's research ecosystem, the chapter sheds light on the intricacies of managing research within a postgraduate institute. The chapter also presents the quality assurance protocols for postgraduate study at UMI, meticulously delineating the criteria and guidelines underpinning quality assurance. In assuring quality, the authors emphasized the importance of academic rigor, ethical research conduct, contributions to the respective fields of study and contribution to the socioeconomic well-being of society. The last section of the chapter is the conclusion that underscores the significance of effective research management in a postgraduate institute.

Keywords: *Research Management, Quality Assurance System, Postgraduate Institute*

Introduction

1.0 Overview and background to research management

Uganda Management Institute (UMI) was established in 1969 as the Institute of Public Administration (IPA) as an Agency of the Ministry of Public Service (MoPS) responsible for providing in-service training to public servants in Uganda. From the very beginning, the Institute was conceived as a critical component of the country's transformation and development and was deemed responsible for strengthening the management capacities of managers of various institutions. The enactment of the UMI Statute in 1992 transformed IPA into UMI and granted it semi-autonomous status to develop its certificate, diploma and degree programmes. The Institute remained an agency under the Ministry of Public Service until 2001.

The 2001 University and Other Tertiary Institutions Act (UOTIA) repealed the UMI Statute of 1992, placing the Institute under the Ministry of Education and Sports (MOE&S) as one of the Higher Education Institutions. The UOTIA, as enacted, did not quite capture the UMI mandate which was amended in 2006 allowing UMI to be classified as "Other Degree Awarding Institution" (section 19). As such, UMI as a Management Development Institute (MDI) is

mandated to award degrees without necessarily becoming a University. UMI is Uganda's National Centre for training, research and consultancy in the field of management, Leadership and administration.

Higher Education Institutions are mandated to undertake and manage interdependent functions of teaching, research, and consultancy and community engagement. In most universities the teaching function seem to have better developed management frameworks, processes and strategies compared to other functions. Schützenmeister (2010) claim that the need for professional management of the research function is becoming more critical due to the centrality of research in the success of other functions and the fact that universities seek to become research led yet they have no proper management and organizational frameworks. Uganda Management Institute has put in place policies and systems to manage its diverse functions including research and innovations.

Guided by its research and innovation policy as reviewed in 2019, the Institute manages five kinds of research: a) *Student research- this is research undertaken by students leading to the award of post-graduate degrees, i.e., masters and PhDs,* and often supervised by academic staff. These studies are both pure knowledge research as well as applied research aimed at solving organizational and community management, administration, and leadership problems; b) Academic staff research- these are studies undertaken by staff for publication, for extending knowledge frontiers, and for sharing in any other form. These studies are often used as reference materials in teaching, publications and policymaking. To enhance the utility value of students' and staff researches, the knowledge translation facility engages in translating selected researches into tangible projects implemented at community levels to contribute to solving the socio-economic challenges of society.

The third and significant aspect of UMI research is the *c) Policy research* are studies commissioned by the policy think tank to inform public policy formulation, development and reviews. The Uganda Policy Management Development Forum was established in 2003 to champion evidence-based policy management. Studies lead to policy reports, public policy dialogues/debates, policy briefs and publications. The re-known public policy forum brings together academicians, civil society organizations, researchers, policymakers, and implementers to engage in policy discussions and come up with alternative policy options; d) Intelligence research are studies undertaken by the research and innovation center to inform the decision-making of the Institute. The Institute's top management uses these studies in making policy and operational decisions; e) the Management Business Incubation Centre, on the other hand, engages in developing management solutions to solve management problems and accelerating already researched and developed innovations. This is a new aspect of research at the Institute and still under formation. In undertaking all these researches, the Institute has developed standard operating procedures to ensure quality.

Literature on research management in higher education institutions has focused on analyzing the phenomenon of research funding, managing research grants and accountability as well as managing funders relationships (Slaugter and Leslie 1997, Turk –Bicakci and Brint, 2005,Trindade & Agostinho, 2014, Michavila and Martinez, 2018,) ability for new research universities to penetrate the competitive research arena predominated by old universities (Hazelkorn, 2008), the process of knowledge production and dissemination and focus to utilization by the industry (Cook 1969, Agbede and Dzwairo 2022), research administrators to improve efficiency to serve researcher better (Cook 1969, Kirkland and Ajai-Ajagbe, 2013),the capacity of knowledge makers to produce knowledge, sell and earn from knowledge as a commodity (Sudsawad, 2007,Trindade & Agostinho, 2014), maintaining research ethics and integrityand alignment of research to be relevant and meet needs of society (Kivinen, Ahola, and Kaipainen (1999), Agbede and Dzwairo 2022). Such a knowledge base has undoubtedly informed how institutions organize and manage the research function.

Some institutions responded by increasing funding to research functions, mounted capacity building programmes to enhance the capacity of researchers and developing research agendas and strategic plans, setting structures to manage grants and industry relationships, and intensifying training of research methods with emphasis to research ethics which is traditionally thought to enhance the quality of research. This chapter discusses the principle, processes, strategies and practices that improve quality assurance in managing student's studies at UMI and also explains what would be at stake if quality is not assured. To interrogate the quality practices of managing research at UMI, the authors, who are the research managers, quality assurance managers and education leaders utilize their lived experience to critically analyze the governance, legal, and policy framework of managing research, the administrative structures and systems, and the practices of student research management at the Institute. This chapter shows what is working and what is not working well regarding quality assurance systems, procedures, and practices at UMI.

1.2 Research Management

Research is one of the most discussed functions among students and academic staff in higher education, especially in universities and other degree-awarding institutions. Among students, research is a requirement for course completion. At the same time, to academic staff it is part of the criteria for promotion and provides opportunities for rewards, being in editorial boards, getting more funding information of grants from external sources, and being more recognized among peers. This indicates how important research is in promoting professional excellencedelivering outstanding education for nation-building and driving the civilization of society (Agbede and Dzwairo 2022).

Chai (2015) revealed that academic staff spent most of their time on research, teaching and community services, respectively. In a study by Kaguhangire-Barifaijo, Kyohairwe,

&Komakech, (2022), the authors found that most academic staff in Uganda spend some of their time preparing courses / lecture materials, correcting assignments, supervising students, giving speeches, advising students, reviewing manuscripts, attending meetings and providing services to the community. However, assignments of teaching staff depend on the ranks and the type of the Institution, commonly high high-rankingacademic staff (professors) spend much of their time in research and mentorship thanlecturers. Research continues to be a critical criterion for promotion decisions than quality teaching and community activities (Gibbs, 1995; CSU, 2014; Kaguhangire-Barifaijo et al, 2022) in higher education institutions.

Although research is essential in influencing the socio-economic dynamics of society, literature (Elton & Partington, 1991; Dunkin, 1994; Bauer & Henkel, 1997; Young, 2006; Kaguhangire-Barifaijo et al, 2022) suggest that in the African setting, research is less emphasized compared to teaching. This is because teaching is often viewed as a duty and a chore in universities; little incentives is given to staff to devote time and energy to the pursuit of excellence in research; and little funding is available for the university professors to undertake research.

Similarly, Chi (2015) found that in Asian countries like Taiwan,research is more valued and given priority over teaching. However, faculty spend more time on teaching and community service than on research; hence, they carry out research during their leisure time after finishing the mandatory teaching workload.Hughes (2004) argued that the emphasis of teaching or research is to safeguard the vested interests of those involved, for instance (Gibbs, 1995) claimed that quality in teaching flows from quality in research. Gibbs claim is based on the promotion decisions in UK universities where research is scored higher than teaching excellence.It is important to note that only 58% of research-intensive universities consider teaching in their promotion criteria (Chi, 2015). Because of these conflicting and complementary mandates;universitieshave established research management centers or departments in order to spearhead research functions.

Research management is a complex administrative task that does not begin and end with student’s research but includes seeking and obtaining research funds to supplement the institute's income, managing research projects and turning research output into consultancy projects, community engagement and knowledge for use in teaching and policies to benefit the public. Research management as a growing field of academic and research organisations emerged from the US due to a lack of coordination between the military and private scientists. In 1940s, the National Research and Defense Council (NRDC) was created as part of the Council of Defense to coordinate, supervise, and conduct scientific research on the problems underlying the development, production, and use of mechanisms and devices of warfare. The Council funded several research projects in different industrial and educational institutions. The most notable projects were the Manhattan Project, which produced the first nuclear weapon during World War II; Project Pigeon, which was aimed at training pigeons to act as pilots; DUKW–Amphibious Vehicle, Proximity Fuze andthe Radiation Laboratory in the Massachusetts Institute of

Technology. However, the NRCD was relegated to research board and was brought to an end in 1947 despite its achievements in developing technology during the World War II. The Office of Science and Research Development (OSRD) superseded NRCD in 1941 to coordinate scientific research for military purposes.

By 1970, research associations were founded in Europe; for instance, the Society of Research Administrators International (SRAI) was founded by 100 members who met in 1967 at the University of Massachusetts, Amherst, to provide education, professional development, and the latest comprehensive information about research management to professionals to its worldwide network. From that time, Research management or administration has been considered as a new field of profession andhas been acquired in a university environment (Duncan, 1969; Huang & Hung, 2018). To promote the profession, theJournal of Research Administration was pioneered by SRAI, followed by Research Management Review, which is the publication of the Journal of the National Council of University Research Administrators, was founded in 1969 and 1987,respectively.The purpose was to provide a forum for the dissemination of knowledge about the study and practice of the profession of research administration and/ management.

In Africa, regional research associations like the West African Research and Innovation Management Association (WARIMA), Eastern Africa Research and Innovation Management Association (EARIMA), Southern Africa Research and Innovation Management Association (SARIMA)and Central Africa Research and Innovation Management Association (CARIMA) emerged from Research and Innovation Management Associations (RIMA) in early 2000.The most vibrant association is SARIMA which has encouraged practice and knowledge bases in advocacy and leadership, policy and knowledge platforms, working within respective national and regional systems of innovation, organised annual international conferences, conducted capacity development programmes, study exchanges and mentorship since 2002. This area of intervention indicates that research management is interdisciplinary. It emerged due to two main reasons: the growing interest of university administrations in research planning and specialization; and the need to get external funding and collaborations (Schuetzenmeister, 2010; SARIMA, 2018). Gabriele & Caines (2014) claimed that research management defy the boundaries between academic and administrative roles and empowers the system in a multi-level and multi-disciplinary fashion. This claim is consistent with (Duncan, 1969). The authorhad noted that in a university, the responsibility for research administration and/ research management and research policy is diffused throughout the organization; hence all departments must cooperate in order to make the entire process effective. Huang & Hung (2018) noted that research management practitioners support research enterprise and they work closely with researchers in various disciplines which makes it for them to gain access to knowledge and skills that researchers possess.

Similarly, Trindade & Agostinho (2014) mentioned three key areas that raised the need for specialized research managers at institutions. These areas were (a) the urge to create socio-

economic value from scientific knowledge, (b) the general demand for accountability of publicly funded research, (c) and the complexity of research funding and management.These same issues were discussed as challenges of research management Agbede and Dzwairo (20022). In the context of Portugal, the authors revealed that research management is handled by specialized research managers who are highly academically qualified staff. In the contrary, this has occurred without the simultaneous development of an adequate career structure for the last 20 years.Although research management is changing and becoming more professional, there is no universal definition yet. Duncan one ofthe first scholar in the field describe research management / administration as a process that requires good technique in matters of detail, the ability to extract meaningful information from the detail and communicate it to those who need it, maintenance of the integrity of the whole academic process and some understanding of the effect of research on society.Notably, (SARIMA, 2018) noted that it is challenging to define research management since it is practiced inconsistently and the definition vary from individuals and organizations.

Kirkland & Ajai-Ajagbe (2013) defined Research Management (RM) as any action that a university can take to improve the effectiveness of its researchers, but which is not part of the research process itself. These action includes; (a) measures to improve academic awareness of funding opportunities or collaboration opportunities; (b) giving advice to ensure that research takes place on terms that are advantageous to the university; (c) researchers meet their obligations to sponsors in a timely way; (d) assist researchers in presenting their ideas more effectively to donors; and (e) research results are effectively disseminated to wider society and where appropriate to commercialized research output.SARIMA described Research Management as the capabilities that research-focused organisations harness so as to optimise and amplify the processes and impacts of their research activity and outcomes. Research Management activities involves research planning;partnerships and collaboration; research funding; managing funded research; strategy and policy development; research ethics and integrity; researcher development; research data and research information management; research uptake and utilisation; organisation and delivery of a research management service (SARIMA, 2018). This implies that research management is not static but depends on what is being practiced within the university. Research Management helps researchers access funding and reassure donors that their funds are being well-used while it is a basis for quality assurance and accountability to students.

Since research is not completed by chance, it means quality assurance is embedded within research management. According to ISO 8402:1994, Quality Assurance (QA) refers to all the planned and systematic actions implemented within the quality system, and demonstrated as needed, to provide adequate confidence that an entity will fulfill requirements for quality. It is in this regard that Universities everywhere encouragepostgraduate students to comply with the quality assurance framework to conduct high-quality research that meets the needs of the university and community. This process is guided by research policies and guidelines that

guidetheir research. Therefore, the university must ensure that postgraduate study is conducted within an approved framework of institutional policies and plans.

African Standards and Guidelines for Quality Assurance in Higher Education (ASG-QA) highlights eight (8) areas that the university has to ensure to have quality postgraduate research (HAQAA Initiative, 2017 and Nabaho, Turyasingura, Kiiza, Andama &Beinebyabo, 2020)and these include:

a) There are standards, procedures and processes for the approval of research proposals and theses, and the conduct and supervision of research studies;
b) There are policies, research management systems and strategies, adequate infrastructure and resources that facilitate all staff to undertake innovative research, and publish research results;
c) There is a shared understanding of the nature, role and goals of research;
d) There are standards and processes for the approval of research proposals and theses, in line with the research needs of the national or regional context;
e) There is adequate academic integrity through the establishment and use of appropriate research committees and boards to ensure academic integrity;
f) The research undertaken is relevant and responsive to the needs for academic advancement and community development expectations;
g) There is effective monitoring and evaluation of the research system;
h) There are capacity-building possibilities for researchers, management of research partnerships and research contracts, handling of intellectual property and commercialisation of research; effective and trustworthy management of research information.

2.0 Post-graduate Research Management at Uganda Management Institute

Effective management of the research function is universities is dependent on the human resources and structures available to support research. At Uganda Management Institute (UMI), post-graduate research is governed at all layers of academic sections (at the Department, School level, Institute Research and Innovation Center (IRIC), and then Senate) with supported policies, guidelines, research agenda, and graduate handbook. All these layers have separate functions, with the IRIC, taking the oversight role which will be discussed later. The IRIC's strategic plan for the period 2020 – 2025 is focused towards making UMI a research and innovation led institute in terms of structures, systems, culture and operations, securing research funding through collaborative research, and making the Management Business Incubation Centre, operational and generation and dissemination of research evidence to research users.

2.1The Roles of Key Personnel in IRIC

The IRIC is dedicated to advancing research and fostering innovation across various domains. The IRIC is instrumental in promoting a culture of scholarly inquiry, knowledge creation, and technological innovation within UMI. The IRIC staff includes the Chief of the Institute Research and Innovation Centre, Senior Research Fellow, Research Fellows, Management Business Incubation Manager, Business Development Officer, and Application Development Officer, all working together to create a culture of research and innovation within the institution. Here's a detailed overview of the roles of key personnel in the Institute Research and Innovation Centre:

a) *The Chief of the IRIC:*The Chief provides overall leadership and strategic direction for research and innovation activities at UMI. The Chiefformulates and implements policies, strategies, and initiatives that promote research and innovation within the institution. The Chief also oversees the coordination of various IRIC functions.
b) *The Senior Research Fellow:* This is primarily responsible for conducting and managing policy-related research projects. The Fellow work on studies that address critical policy issues, often in collaboration with external partners and government agencies. The goal is to generate research outcomes that inform policy decisions.
c) *Research Fellow in Charge of Participants/ Students Research:* Focuses on facilitating and overseeing research conducted by UMI's participants and students. The Fellowprovide guidance, mentorship, and support to students throughout the research process, from project conception to completion.
d) *Research Fellow in Charge of Staff Research:* The Fellow coordinates and manages research activities among UMI's staff members. The Fellow also oversee the research grants and publication process, which includes managing UMI's academic journals and facilitating the dissemination of research findings through conferences, symposium, workshops and seminars.
e) *TheManagement Business Incubation Centre Manager:* The Manager focuses in nurturing and supporting innovative startups and entrepreneurial ventures, providing mentoring, resources, and infrastructure to aspiring entrepreneurs within and outside of UMI. Focuses on supporting incubation of management solutions and business acceleration.
f) *The Business Development Officer:* Plays a key role in identifying and fostering partnerships with external organizations, seeking opportunities for collaboration, research funding, and other initiatives that align with UMI's research and innovation goals.
g) *The Application Development Officer:* Focuses on developing and maintaining software applications and digital tools that support research and innovation activities at UMI. The Officerworks on technological solutions that enhance research processes, data management, and information dissemination.

2.2 The role of different Research Committees

The UMI functional research committees complement the IRIC's efforts, which are crucial in research and innovation domains. These are standing committees composed of experts and researchers from various fields such as; faculty, industry, and public and private organizations, and they oversee and guidethe research and innovation activities of UMI. The four (4) committees are presented in the matrix below.

Table 1: The UMI Research Committees and Functions

Research Committees Levels	**Functions**
Senate Research and Innovation Committee	The key functions include but not limited to: a) Develop Research and Innovation Policies and Guidelines for Senate Approval; b) Develop Research and Innovation Agenda for the Institute; c) Make Proposal and oversee the implementation and inclusion of research in teaching, learning and assessment; d) Ensure adherence to the research and innovation publication policy guidelines; e) Solicit and manage funds for research grants; f) Closely monitor and make reports about those staff whose grants are not channeled through the Institute; and g) Inculcate a research culture in all Institute operations
Institute Research Advisory Board (IRAB)	To promote the Institute's research and innovation by guiding to the Institute Research & Innovation Centre, Directorate and Senate on research development matters including the following: a) Institute Research & Innovation policy b) Development of the Institute’s Research & Innovation Agenda c) Preserving the disciplinary orientation of researches at the Institute d) Enhancing research & Innovation funding, partnership and sustainability e) Enhancing research & Innovation quality, ethics and usability f) Promoting research & Innovation visibility. g) Matters relating to research & Innovation contribution and impact to society
Research Ethics Committee (REC)	The key functions include but not limited to: a) Maintain public confidence in the ethical quality of research and innovation conducted by UMI participants, staff and other researchers not affiliated to UMI.

	b) Provide ethical standards and procedures for conduct of research involving humans as research participants; c) Act as a gate to the Institute researchers and supervisors by providing high institutional-level leadership on ethical matters arising out of research and innovation. d) Recommend policies and procedures for the Institute in respect of research ethics involving human participants so as to maintain high standards of research integrity. e) Foster a culture among staff and students that is sensitive to ethical considerations where research with people is concerned f) Ensure that research and resulting interventions contributes to the promotion of gender equality whenever possible
School Research Committee (SRC)	The key functions include but not limited to: a) Allocate supervisors to Masters or PhD students b) Allocate critical reviewers of Masters Research proposals c) Organize proposal defense, compile and share minutes with participants d) Clear students to progress for field work by providing introductory letters e) Allocate and appoint internal examiners for Masters dissertations f) Coordinate the internal examination process for Masters Dissertations g) Coordinate staff research and publication activities in the schools h) Reviewing and approval of research projects by staff for research grants i) Liaise with the IRIC to identify and address supervision related complaints j) Coordinating effective undertaking of cross disciplinary researches k) Reviewing research innovations in the school l) Quality assurance of research products by staff and participants m) Make regular reports on research activity undertakings at the school level n) Networking with other school boards on issues of research supervision and quality assurance o) Identify and forward to the IRIC, research issues that require management and policy attention

These committees create a dynamic network of collaboration and expertise, driving research and innovation initiatives both within and outside the institution. Through this collaborative approach, research at UMI remains robust, impactful, and aligned with the institute's vision of becoming a world-class Management Development Institute known for its excellence in research, community engagement, teaching and learning.

3.0 Quality Assurance in the Post-Graduate Research

Quality of research is among the core values underscored in the Institute Research and Innovation Center's (IRIC) Strategic Plan. Over the last five years, UMI, through the IRIC, has strategically positioned itself to improve the quality of the research process and output with an emphasis on student research. To this end, a variety of policy-specific and practical measures focusing on strengthening institutional capacity for research undertaking have been implemented. Such efforts include; a) the Development of the Graduate handbook detailing the guidelines for the research processes at UMI; b) the Development of the guidelines for dissertation and proposal writing; c) Strengthening the capacity of staff in research supervision and examination through PhD sponsorship and in-house training workshops on research supervision and examination; d) training on quantitative data analysis and the research methods training on the research wheel; and e) Adoption of anti- plagiarism testing and using the Turnitin software to ensure compliance with this requirement.

In addition to institutional specific measures and practices, other quality assurance protocols for postgraduate research (Master's and PhD-level research) have been institutionalized. Some of the following distinct guidelines and criteria uphold the highest standards of research excellence:

3.1 Research Methods Training Workshops

UMI organizes five research workshops for master's degrees and biannual doctoral research workshops for PhD students. To ensure that participants are thoroughly equipped with the knowledge and skills required for research, UMI adopts a centralized approach to managing all research methods workshops. During the planning stage, the IRIC oversees and coordinates the development of timetables that feature standardized research methods content and allocation of facilitators. These facilitators possess both expertise and passion in the specific research methods topics. Before each workshop or module, a meeting is held to harmonize the teaching materials and mode of co-facilitation.

The Research Methods training is delivered through face-to-face and/ virtual modes using online technologies. The training comprises lectures, practical sessions, and self-study sessions. Participants/ students are also given practical assignments to complete in their free study time. Additionally, self-study sessions allow participants to engage in further reading and preparation. Both PhD and masters students are given space during the workshops to present their research

works. Research methods workshops are crucial in ensuring acquisition of research knowledge and skills.

Research methods workshops are evaluated using a standard workshop evaluation tool to assess the quality of facilitators, training methods, learning materials, and overall effectiveness in facilitating learning. The data collected is analyzed, and quarterly reports are submitted to management with improvement recommendations. The Institute Registrar ensures that participants meet mandatory research workshop attendance, with a minimum of 75% attendance across all workshops or module days.

3.2 Supervisor's Allocation

UMI offers a comprehensive system to support participants/ students in their research projects. The School Research Committee (SRC) is responsible for assigning supervisors to each student, and the UMI Graduate Handbook outlines the guidelines for supervision. The handbook covers eligibility criteria for supervision, the roles of supervisors, and the management of supervision. UMI utilizes diverse supervision models including; a) sole supervision, b) co-supervision, and c) cohort supervision. For PhD candidates, the principal supervisor and co-supervisor must hold a PhD qualification, possess at least 2 years of teaching/ research experience, and be an expert in the subject area to be supervised or research methods. While for Masters level research, the main supervisor must hold a PhD, and the co-supervisor should have at least a Master's degree and be a specialist in the subject matter. The Institute continuously monitors and manages the supervision process through IRIC, and engages in ongoing capacity building and research to enhance the quality of supervision. The provision of addressing grievances and appeals is also crucial in maintaining the quality of research by providing a straightforward procedure for addressing any issues that may arise.

3.3 Research Clinic and PhD colloquium

The research methods training and the supervision process is supplemented by the weekly Research Clinics and the monthly PhD colloquium. The research clinic supportsmasters and PhD students on research methodology aspects with bias to data analysis. A research methodology expert drawn from different schools manages the weekly clinic and readily provides support to students. The research clinic addresses challenges in research methodology, particularly data analysis and compliance with scientific principles of research methodology.The monthly PhD provides coaching and mentorship for PhD students, particularly in areas of conceptualization and scholarly writing. The colloquium is managed by PhD students based on their needs; students make presentations to the audience comprised of peers and selected supervisors/ subject experts. These colloquiums are also attended by guest lecturers and visiting professors who share their experiences with PhD research. The Clinic and the Colloquium supplement the ongoing supervision and training efforts and enable students to get support/advice from research and

subject experts. The research fellow in charge of student research oversees, monitors and reports on the performance of these services.

3.4 Ethical Clearance

Ethical clearance is a crucial aspect of UMI's research process, ensuring that research is conducted in an ethical manner and adheres to established ethical standards and guidelines. Ethical clearance refers to the process of obtaining approval from a governing body or regulatory agency, such as the Uganda National Council for Science and Technology (UNCST), for a research project to be conducted. This process ensures that the research is conducted ethically, considering the potential risks and benefits for participants and adhering to established ethical standards and guidelines. A copy of the clearance letter is appended to the final dissertation and/ thesis.

3.5 Anti-Plagiarism Tests

Anti-plagiarism testing uses software, such as Turnitin, to check a research document for plagiarism, which refers to presenting someone else's work or ideas as one's own. The Institute has a policy on plagiarism, which requires students and staff to understand and comply with the policy and procedures of the institute concerning plagiarism. The policy also includes preventive measures, such as avoiding copy-pasting other authors' work and ensuring proper citation and referencing to avoid plagiarism. When submitting the research report, proposal or dissertation, the administrator cross-checks whether the submission bears an anti-plagiarism report with an acceptable level of plagiarism, and submissions without such information are denied. Any research works with an unacceptable level of plagiarism (above 15%) are penalized per the UMI Anti-Plagiarism Policy provisions.

3.5Examination/ Assessment of Research Output

The assessment process of the masterly of research and scholarly writing skills is guided by standard procedures and tools provided in the UMI Graduate Handbook, which involves scoring proposal defense, dissertation text, and viva voce. The assessment is done at the proposal and thesis stages.

The proposal defense is a critical stage in the research process. The purpose of the defense is to assess the scientific soundness of the proposal in terms of compliance with generic research principles. The assessment is also used to establish whether what is sought to be investigated is worth researching, whether the proposed methods are appropriate and whether the student understands what they seek to study and how to undertake the researchbefore being cleared for fieldwork. The defense is conducted by a panel of reviewers who scrutinize the proposal's text and lead the student interrogation and assessment during the defense. The assessment is done using a standard tool that rates the overall relevancy of the study, historical, theoretical,

conceptual, and contextual issues, clarity of the problem under investigation, appropriateness of objectives, research questions and hypotheses, and the relevancy of the study. To motivate the reviewers, they are paid an honorarium in appreciation for conducting a quality assessment.

The dissertation/thesis assessment involves text examination and viva voce/public defence. Students canproceed for viva voce/public defense after the text examination scores their research work above 60%. The assessment criteria, marking schemes, and guidelines for developing a thesis, along with the provision for corrections and resubmission, are a robust mechanism for assessing and improving the quality of research. The involvement of experienced academics, who are not affiliated with the candidate's institution, including subject matter specialists and external examiners, ensures that the study meets the requirements of the relevant academic discipline and is high quality.The viva voce examination tests the ownership and ability of a student to defend and disseminate their research products, which contributes to the quality of the final research product. The examination process is further ensured by avoiding conflicts of interest and assessing the examiner's performance after the examination diet.

4.0 Benefits of Quality Assurance in Post-Graduate Research

The guidelines/procedures and practices explained earlier have enabled UMI to maintain high research standardsfor PhD and Master's candidates. Undoubtedly, quality assurance in postgraduate research ensures that research undertaken by students meets high standards andproduces impactful results for society. More specifically, UMI attests to the following outcomes of its quality assurance strategy forpost-graduate research;

Reliability of research findings/results: The quality mechanisms has minimized conceptual, theoretical, methodological and or analytical research errors and biases. This means that UMI's students' researches are to a large extent trustworthy, consistent and dependable.

*Adherence to ethical standards:*Ethics challenges researchers worldwide and has been a subject of concern in any research involving humans. Students define ethical issues in their research projects and measures to handle them before they are allowed to undertake fieldwork. The quality assurance mechanisms involving securing ethical certificates and anti-plagiarism testing helps students to uphold institutional, national and international ethical standards/guidelines. Adhering to standards contributes to the maintenance of academic integrity and honesty. Research products from an integral process are highly likely to be published in scholarly journals.

*Masterly of research skills:*The training, coaching, mentorship, and supervision among others help students to develop better research skills, adopt innovative designs and rigorous study methodologies which may guarantee quality study outcomes.

*Utility value of research produced by students:*UMI students mainly undertake applied research, which results in policy recommendations, operational recommendations, and sometimes the

development of models aimed at solving societal challenges. The insistence on students to develop researchthataddressessociety's problems and or the existing research agendas of the government enhances the usability of research products by UMI students. These can then be translated into knowledge products and development projects to address societal issues.

Reputation of UMI: The quality assurance mechanisms,including multi-staged examination of proposal defenses and viva voce/ public defenceand external examination emphasize rigor and critical thinking. Valuable research produced by students enhances UMI's brand. UMI is known for its quality and credible standards.

5.0 Conclusion

It is widely recognized that universities play a crucial role in shaping a nation's trajectory on the global stage, serving as crucibles of knowledge, innovation, and talent. At the heart of a university's journey towards excellence lies high-quality research. Effective research management is paramount in postgraduate institutes, and the role of research facilitators or research development managers has emerged as a strategic imperative. These individuals collaborate closely with academic researchers, enhancing their productivity and success in research endeavors and paving the way for universities to distinguish themselves as centers of excellence. One of the most significant contributions of research facilitators is their ability to identify collaborative, multidisciplinary research opportunities. By nurturing vibrant academic communities around these opportunities, they foster an environment conducive to successful research bids.

This dynamic evolution in research management recognizes that adequate research is a core function of postgraduate institutes and a linchpin for their sustained reputation for excellence. Through strategic research management practices, universities harness the full potential of their academic talent, generating new knowledge, innovations, and commercial gains that benefit both the institution and the nation. In an era where universities are vital contributors to nations' social and economic fabric, high-quality research is the cornerstone for their reputation and impact. The quality assurance of post-graduate research enhances students' research skills and adherence to ethical standards, increasing the reliability and utility value of research findings. Therefore, effective research management of postgraduate researchis imperative for universities' continued success and global relevance.

References

Agbede G.T. &Dzwairo, B., (2022). Research Management in Higher Education Institutions: Uncharted Challenges and Solutions. *Interdisciplinary Journal of Economics and Business Law,* 11(4), pp. 197-215,

Bauer, M. & Henkel, M (1997), "Responses of Academe to Quality Reforms in Higher Education: A Comparative Study of England and Sweden", *Tertiary Education and Management*, 3(3), 211-228.

Duncan, R., (1969). What I Expect Of A Research Administrator. New Mexico State University, Las Cruces. *Reprinted from the Journal of Research Administration*, 1(1).

Dunkin, M. J. (1994). Award winning university teachers' beliefs about teaching versus research. *Higher Education Research and Development*, 13, 85-91.

Elton, L. & Partington, P. (1991), Teaching Standards and Excellence in Higher Education, developing a culture for quality. *Sheffield CVCP Universities' Staff Development and Training Unit*

Gabriele, E.D, & Caines, V.V, (2014). Leader Being: Critical Reflections on Context, Character and Challenge in the Culture of Research and Its Administration. *Research Management Review*, 20(1), 1-38

HAQAA Initiative. (2017). African Standards and Guidelines for Quality Assurance in Higher Education (ASG-QA).

Hazelkorn, E., (2008). University Research Management - Developing Research in New Institutions. *Centre for Social and Educational Research, Dublin Institute of Technology*. http://arrow.dit.ie/cseroth/8

Huang, J.S & Hung. W.L, (2018). Building the science of research management: What can research management learn from education research? *The Journal of Research Administration*, (49) 1, 11-30

Huges, M., (2004). The relationships between Research and Teaching in Higher Education: A Review of the Literature (1990-2002). *Occasional 2 Paper No. 2.*

Kaguhangire-Barifaijo, M., Kyohairwe, S. B., & Komakech, R. A. (2022). Academics' Enthusiasm for Scholarly Research Engagement: Perspectives on Selected Universities in Uganda. *Open Journal of Social Sciences,* 10, 284-305. https://doi.org/10.4236/jss.2022.1013023

Kasozi, A.B.K., (2016). The National Council for Higher Education and the Growth of University Sub-sector in Uganda. *Council for the Development of Social Science Research in Africa (CODESRIA)*. Dakar, Senegal

Kirkland, J. & Ajai-Ajagbe, P., (2013). Research management in African universities: from awareness raising to developing structures. *The Association of Commonwealth Universities.*

Kivinen, O. (1999). *Towards the European model of postgraduate training*. University of Turku, Research Unit for the Sociology of Education.

Kyaligonza, R., Kimoga, J., &Nabayego, C., (2015). Funding of Academic Staff's Research in Public Universities in Uganda: Challenges and Opportunities. *Makerere Journal of Higher Education*. 7 (2), 147–162. http://dx.doi.org/10.4314/majohe.v7i2.10

Michavila, F., & Martinez, J. M. (2018). Excellence of universities versus autonomy, funding and accountability. *European Review*, *26*(S1), S48-S56.

Mintrom, M., (2008). Managing the research function of the university: pressures and dilemmas. *Journal of Higher Education Policy and Management*. 30(3), 231–244

Nabaho, L., Turyasingura, W., Kiiza, A. K., Andama, F., &Beinebyabo, A. (2020). Quality assurance of higher education governance and management: An exploration of the minimum imperative for the envisioned African common higher education space. *Higher Learning Research Communications*, *10*(2), 38-52.

SARIM, (2018). Research Management: A Handbook for Southern African Research Management Offices

Schuetzenmeister, F., (2010). University Research Management: An Exploratory Literature Review. *Institute of European Studies*, University of California, Berkeley

Slaughter, S. and Leslie, L.L. (1997). Academic capitalism: Politics, policies, and the entrepreneurial university. Baltimore, MD: Johns Hopkins University Press.

Sudsawad, P. (2007). *Knowledge translation: Introduction to models, strategies, and measures.* Austin, TX: Southwest Educational Development Laboratory, National Center for the Dissemination of Disability Research, 1-44.

Trindade, M., & Agostinho, M., (2014). Research Management in Portugal: A Quest for Professional Identity. *Research Management Review*, 20(1), 39-48

Turk-Bicakci, L., & Brint, S. (2005). University–industry collaboration: patterns of growth for low-and middle-level performers. *Higher Education*, *49*, 61-89.