

Enhancing International Postgraduate Students' Research and Supervision Capabilities in Tanzanian Higher Education Institutions

Theresia Joakim Kanyopa¹, Matseliso Mokhele-Makgalwa²

Abstract

Research and supervision are viewed as vital aspects of successful learning in postgraduate programs. This cultivates the effectiveness of the whole process of learning for international postgraduates in their host countries. In this process, learning environment is designated to facilitate the international postgraduate students' knowledge based on useful learning resources offered by the respective institutions. Currently, most of the common complaints from the international postgraduate students in Tanzanian Higher Education Institutions centered around infrequent and erratic communications between them, their lecturers, and supervisors who were mentioned to be very busy with other administrative and teaching responsibilities. Some were said to have many students and tend to be away from their universities too often. This study was conducted in Tanzania, involving eight international postgraduate students (4 females and 4 males). Convenient and snowball sampling methods were employed to recruit the participants of the study. Qualitative design was employed whereby telephonic in-depth interview and reflective writing were utilized to generate data which were thematically analysed. By using the Sen's capability theoretical framework, this study endeavored to unveil conversion factors that hinder enhancement of international postgraduates' research and supervision capabilities. The study thrusts the importance of enhancing research and supervision capabilities to postgraduate students and proposes the best practices of supervisory inputs.

Keywords: *Capabilities, Internationalisation, International Postgraduate Student, Research Skill, Supervision Skill, Tanzanian Higher Education System*

INTRODUCTION

Research and supervision capabilities are the driven forces to enhance the image of Higher Education Institutions (HEIs) around the world. Globally, every university is striving to produce more quality postgraduate students with outstanding research and supervision skills. In response to this demand, it is essential for postgraduate students to be in a good, welcoming and enabling learning environment that will provide them with efficiency learning supports, materials and an effective supervision system (Fussy, 2024; Tundui, 2020). Research on international students undertaking postgraduate studies in abroad affirm that these students are under increasing pressure to complete their studies in a specific timeframe (Mohammed, 2023; Wolhuter, 2023). Moreover, studies show that internationalisation of HEIs presents a significant range of diversity such as cultures, ages, races, abilities, experiences, and learning needs (Moshtari & Safarpour, 2024; Wolhuter, 2023). Consequently, the existing diversity promote pressures to most of international postgraduate students in the line of events such as completing within a studies timeframe, presenting and publishing research papers, supporting their families as well as to develop a broader range of skills such as doing research and supervision that “will enhance their marketability in a global job market” (Nziku, Kahangwa & Mabagala, 2022, p. 12). On top of that, these students also are expected to develop new skills, knowledge in producing ground-breaking works, keeping up with literature and writing their theses within the same timeframe (Alemu, 2023; Wolhuter, 2023).

Indeed, being a postgraduate student especially in a foreign country is a complex task that requires a full commitment, family support, and institutional support to attain successful achievements. In Tanzanian HEIs, it has been mentioned that most of international postgraduate students are facing challenges such as social exclusion, lack of institutional support, and lack of funding or scholarships (Moshtari & Safarpour, 2024). Studies mention that lack of scholarships is a big obstacle for international postgraduate students to finish

¹ Department of Curriculum Studies and High Education, University of the Free State, Bloemfontein, 9300 Republic of South Africa E-mail: kanyopa.tj@ufs.ac.za

² Department of Curriculum Studies and High Education, University of the Free State, Bloemfontein, 9300 Republic of South Africa

within the timeframe given (Banda & Zungu, 2024; Fussy, 2024; Mohammed, 2023). This is because most of these students are forced to do part-time learning and engaging themselves in part-time jobs to support their families back home, and to support their studies and living expenses. Literature also shows that international postgraduate students in Tanzanian HEIs are often experience challenges which delay their studies or even prevent them from finishing (Amani, Myeya & Mhewa, 2022; Ayiro, Muriithi & Munyao, 2023).

Mohammed (2023) stipulates that challenges facing international postgraduate students in abroad could be the source of existing poor quality of research works and supervision in most of HEIs systems. Recent studies by Banda and Zungu (2024); Moshtari and Safarpour (2024) insist that completion of Masters and PHD dissertations is not a justification that a candidate is capable of doing research or providing supervision to undergraduate or postgraduate students. Beside, numerous research findings are showing that there are high proportions of postgraduate students who fail to complete their studies within a given timeframe, while the main reasons to this problem are linked to the research and supervision processes. This study seeks to complement the findings of previous studies like that by Tundui (2020); Balandya, Sunguya, Gunda, Kidenya, Nyamhanga, Minja and Lyamuya (2021); Amani et al. (2022); Kadikilo, Kulshrestha, Sahay and Nayak (2023) on the international postgraduate students in Tanzanian HEIs. In essence, these studies did not reveal how the universities can enhance the international postgraduate student's research and supervision capabilities, nor specifically focus on these two skills. To fill this gap, this qualitative study intends to explore the following research questions:

RQ1. What are the international postgraduate students' research and supervision capabilities in Tanzanian HEIs?

RQ2. How can Tanzanian HEIs enhance the international postgraduate students' research and supervision capabilities?

RQ3. Why is it important to enhance the international postgraduate students' research and supervision capabilities through integration and inclusion?

LITERATURE REVIEW

To remind the reader, the main aim of the study is to explore the strategies to enhance the international postgraduate students' research and supervision capabilities in Tanzanian HEIs. This is reflected by the research objectives that posited the literature review of the research topic. The research objectives are:

1. To explore the perceptions of international postgraduate students' research and supervision capabilities in Tanzanian HEIs.
2. To explore the strategies in which Tanzanian HEIs can enhance the international postgraduate students' research and supervision capabilities.
3. To examine the significance for enhancing the international postgraduate students' research and supervision capabilities?

RELEVANT LITERATURE

Postgraduate students' needs can be investigated from various perspectives. The literature review presented in this section is on the international postgraduate students who are pursue their postgraduate programs in foreign countries, away from the country of their origin. Literature show that international postgraduate students pursue the postgraduate programs for various reasons (Amani et al., 2022; Ayiro et al., 2023; Tundui, 2020). Some of the reasons mentioned in research studies are including job promotion, improving of career opportunities, gaining of higher social status and self-development (Balandya et al., 2021; Kadikilo, Nayak & Sahay, 2024). Additionally, an effective research and supervision capabilities have been empirically proven to be elements and success factors for international postgraduate students (Chen, 2023; Mohammed, 2023). In Tanzanian HEIs, studies revealed three structures of supervision that are utilized in most universities, namely; single supervisor, two supervisors (main and co-supervisor), and a committee supervision which is consisting from three and above supervisors, whilst, one of them acts as the chairperson (Kurgat, 2023; Tundui, 2020). Nziku et al. (2022)

affirms that the structure of supervisions in Tanzania HEIs depends on the local guidelines provided by the specific institution.

More important, comprehensive skills in research and supervision are mentioned to be important for both local and international postgraduate students because, “the skills help them to carry out and conduct different studies and produce outputs that have impacts to their societies” (Banda & Zungu, 2024, p. 135). This implies that, the identification of effective research and supervision capabilities could be best accomplished not only through the best existing practices, but also through the identification of aspects of those practices which would most required to be rechecked, modified, and perhaps changing them for the benefits of all students (Chen, 2023; Provini, 2019). Recently, it was found that good institutional teaching and learning practices will ensure the successful completion of postgraduate programs for both local and international students (Kanyopa & Makgalwa, 2024a).

Moreover, studies that focused on improving international postgraduate students' experiences in foreign HEIs, found that instructing research and supervision need to adopt different diverse ways (Alemu, 2023; Kadikilo et al., 2024). In a more recently studies by Kadikilo et al. (2024); Moshtari and Safarpour (2024) affirm that the quality of postgraduate students depends not only on the supervision methodology, but also, other institutional structural elements like policies, infrastructure, fieldworks, library, and attendance of local or international conferences. This prompts the writing of this article, whereby, our focus is designated to facilitate the Tanzanian HEIs systems towards the enhancement of international postgraduate students' research and supervision capabilities.

In congress, this article concurs with the study by Ayiro et al. (2023); Chen (2023); Kurgat (2023); Mohammed (2023) who interpreted good supervision as a two ways interactional process that demands both the student and the supervisor(s) to intentionally engage each other within the spirit of professionalism. In Tanzanian HEI contexts, supervision has become a very critical strategy for international postgraduate students to acquire and enhance their research and supervisions capabilities. Although Amani et al. (2022); Kadikilo et al. (2023) mentioned the concept of supervision as a complex social encounter which involves two diverse parties with their converging and diverging interests. This study emphasises that balancing these interests is very important for the successful enhancement of the international postgraduate students' research and supervision capabilities.

Additionally, this study views the role of departments as a valuable aspect in this matter, in which authors believe that these are the sites of teaching and learning that existing within larger institutions. Hence, with the enhancement of international postgraduate students' research and supervision capabilities, the study insists that each department is required to stipulates a critical guidelines and clear information regarding its' supervisory system to help its' students to acquire an effective supervision. In addition, studies done in 2024 like that by Banda and Zungu; Fussy, affirm that most of postgraduate students are experiencing lots of challenges during their research process. These studies further mentioned some of these challenges such as; most of students are not familiar with research methodologies, which results, to their failure on formatting of an appropriate research topics, selection of participants and contexts (Banda & Zungu, 2024; Fussy, 2024).

Therefore, this study maintains that supervision is one of the crucial elements that Tanzanian HEIs should take into account when discussing about the enhancement of the international postgraduate students' research and supervision capabilities. Over decades, literature have operationalized the issue of international postgraduate students in Tanzanian HEIs, but, the issue of their research and supervision capabilities is still covered with uncertainty. Thus, findings from this study must be seriously catered in order to guide and help the particular context to enhance the international postgraduate students' research and supervision capabilities.

THEORETICAL FRAMEWORK

This study is guided by capability theoretical framework that was introduced by Amartya Sen in 1990s. The theory insists that human development and well-being are conceptualized through individual's capabilities and functionings (Banda & Zungu, 2024). Capability is defined as one's ability to do valuable things and attaining valuable state of being, whilst, functionings is the capability that have been achieved (Hart, 2019). Robeyns (2021, p.75) defines functionings as “the valuable activities and states that makes up an individual's well-being”.

He further mentions that understanding people’s perceptions is an important element in understanding of how their capabilities can be developed, regarding the value of the knowledge they attained (Robeyns, 2021).

Therefore, for international postgraduate students, the opportunity to study their postgraduate programs outside their countries is considered as capability, since it is something that they value to do and to be. Through their desires and aspirations these students foster this capability which in future they are expecting to turn it into a functionings. In this study the functionings is when the international postgraduate students attain an effective research and supervision capabilities and being able to utilize and pass it forwards to the upcoming researchers. This view was supported by Banda and Zungu (2024, p. 142) who claims that “supervisors with strong research capabilities can transfer their knowledge and skills to students and enhance the overall research output of the institution”. Thus, this is a journey that this study embarks on.

Drawing from capability theoretical framework, the realization of capabilities and functionings is determined by conversion factors that were defined as student’s ability to convert resources from their learning institutions into functionings (Robeyns, 2021). Hence, Sen’s capability theoretical framework guided this study to explore how the international postgraduate student’s research and supervision capabilities in Tanzanian HEIs could be enhanced and help them to realise their full potential of functionings. Besides, through their aspirations, conversion factors and identified capabilities, the study managed to assess how the international postgraduate student’s personal, social, and environment factors play an enabling role or constraining role in the enhancement of their research and supervision capabilities in Tanzanian HEIs

METHODOLOGY

This study adopts a qualitative case study research design, and allocates its views under an interpretivism research paradigm to provide a comprehensive understanding of the researched phenomenon. Telephonic in-depth interviews and reflection writing were utilized for data generation process. Further, the thematic data analysis was employed to identify common themes and patterns for the findings.

Selection of the Context and Participants

Research context and participants are vital research components as they represent the best sources of the data to answer the research questions of the researched topic (Flick, 2022; Marx, 2023). Thus, this study was conducted in four Tanzanian HEIs, located in Arusha, Dar-Es-Salaam, Dodoma, and Morogoro regions. This context was selected by using the convenient sampling method because it was convenient and accessible by the correspondent author who is originate from this county. Furthermore, the study employed snowball sampling method to select its eight participants (two from each institution). Snowball sampling is also known as recommendation sampling, in which participants are asked to identify or give a referral of another participant whom they know may be willing to participate and can fit with the research criteria in the research process (Kanyopa, 2022). Snowball sampling is also known as referral sampling because the participants are asked to assist the researcher by referring them to other potential participants (Marx, 2023). All the participants were identified by pseudonyms in this study, and they were paired according to their institutions which were also pseudonymised. Table 1 presents the profile of the participants of the study.

Table 1. Participants profile

Tanzanian Pseudonym	HEI	Participants Pseudonym	Sex	Age	Degree registered	Country of origin
University 1		Thando	F	20–25 years	Master’s degree	South Africa
		Tuddo	M	35–40 years	Doctoral degree	Namibia
University 2		Mussa	M	40–45 years	Doctoral degree	Sudan
		Maggy	F	30–35 years	Master’s degree	Kenya
University 3		Paul	M	35-40 years	Master’s degree	Finland
		Papie	M	35-40 years	Master’s degree	Uganda
University 4		Cassia	F	25-30 years	Master’s degree	Ethiopia
		Coco	F	40-45 years	Doctoral degree	Nigeria

All participants were selected based on their willingness as well as knowledge and experiences of being in these learning institution for more than two years. Consequently, the selected participants were beneficial to the study as they were able to share their perspectives and experiences of the research phenomenon. As a result, the study managed to draw its findings from the participants' perceptions and experiences in the line of the enhancement of international students' research and supervision capabilities.

Data Generation Process

The study employed telephonic in-depth interviews and reflection writing to generate data.

Telephonic in-depth interviews

This is one-on-one in-depth interview that involves discussion between an interviewer and a respondent. This interview is conducted over the phone instead of in-person (Mafokeng, 2023). In this study, this method was conducted via a social media platform known as WhatsApp to interview its participants. This was because both authors are allocated in South Africa and the participants are the international postgraduate students who are registered and studying at the identified Tanzanian HEIs. Telephonic in-depth interview is a qualitative data generation method that is rigorous interviews with a distanced respondent (Marx, 2023; Rahi, 2017). This data generation method allows researchers to explore participants' perspectives on a researched issue freely. Also, the type of in-depth interview utilised was one-on-one interview which were the most suitable method to our participants as each were given an opportunity to choose time and space that they will be free to receive a WhatsApp video/ audio call for the interview sessions. One-on one telephonic interview was appropriate as it enabled the participants to speak freely without a fear or being embarrassed. Moreover, this data generation method was cheap, quick, and beneficial in establishing rapport with the participants of the study (Rahi, 2017).

Reflective writing

This is a qualitative data generation method that stipulates a key components of the participants' experiences (Kanyopa, 2022). The study considered this method to enrich the data generated from the one-on-one in-depth interviews. Kanyopa and Makgalwa (2024a) mentions that reflective data generation method expands the knowledge by critically analyzing the lived experiences of the participants. In this study, the method was employed by asking participants to send their reflections in a Ms. Word document which is not longer than two pages. Participants were encouraged to think deeper regarding their research and supervision capabilities, reflect on their supervisory systems in their institutions and to critically reflect on the strategies they think, if implemented by their HEIs could enhance their research and supervision capabilities. Lastly, the participants were asked to examine the impacts on the enhancement of research and supervision capabilities. Every participant was given one week to complete this reflective writing and send it to the respondent author for further research process which is analysis.

Data Analysis

The study employed thematic data analysis for analysing data generated from the instruments explained in previous section. This is a qualitative data analysis method that allows the researcher to identify, analyze and interpret patterns from the findings (Braun & Clarke, 2023). According to Kanyopa and Makgalwa (2024b) with thematic analysis the researchers are identifying the emerging themes and concepts from the data generated, and further, they present them as findings. This study analyzed the transcripts multiple times to develop the themes. The researchers opted for this analysis method because of the nature of the study which involved distance participants from different HEIs in Tanzania to articulate and contribute their views on the researched topic.

Trustworthiness of the Study

The study took several measures to ensure its trustworthiness. For the *credibility* the study employed triangulation in data generation process and member checking of the instruments used. Authors also built the rapport with participants to understand their perspectives deeply to gain nuanced insights and being able to capture rich data from their experiences, beliefs and perceptions. In addition, *transferability* refers to the

degree to which the findings can be inferred to an alternative research context or population (Kanyopa & Hlalele, 2023). This study ensured this by offering a comprehensive depictions of the context, participants, and data generation process. The detailed explanation provided allow the reader to evaluate the applicability of the findings to other similar context or population. **Dependability** pertains to the enduring and unwavering nature of the research findings over period of time (Mafokeng, 2023). To ensure this, authors of the study rigorously documented the design, techniques, and approaches for data generation and analysis. Thus, this allows the future researchers to follow-up and reproduce the study. Whilst, **confirmability** refers to the impartiality of the findings to remain unaffected by any biases or researchers' interests (Kanyopa, 2022; Marx, 2023). The current study ensured this by allowing member checking of the instruments and the transcripts. Also, this study employed reflexive journaling method that allowed authors to record their and participants' thoughts, reflections and promote transparency throughout the research process.

Ethical consideration

In adherence with ethical consideration, the study obtained the gate keeper permission from the universities. The participants were given informed consent forms explaining that their participation was voluntary without any material or monetary benefits in returns. Also, they were informed that they are free to withdraw at any time if they wish to, and that no physical or psychological harm would be imposed on them by participating in the study. Moreover, the pseudonyms were employed instead of real names for both institutions and participants to ensure anonymity and confidentiality.

DISCUSSION OF FINDINGS

This section presents the findings under the three emerged themes. The presentation of findings is supported by direct quotes from the participants and critical discussion from relevant literature.

Participant's perceptions on their research and supervision capabilities

In this section, the participants were asked to provide an account of their perceptions on the research and supervision capabilities as shaped by their learning experiences in Tanzanian HEIs. Their responses were categorized into pre-arrival and post-arrival perceptions. Within this categories, participants presented various capabilities opportunities as well as the likelihood of transforming these capabilities into functionings.

Pre-arrival perception: Decision on studying destination

The study has found that participant's pre-arrival perceptions shaped their initial attitudes and expectations towards their studies in Tanzania. With their pre-arrival perceptions, this study found that these perceptions often influence the dynamics of academia effectiveness and relationship between the students and supervisors. As mentioned in Banda and Zungu (2024) that their desires and aspirations manifested as intrinsic motivation that pushes most of the international postgraduate students to leave their home countries to study in abroad. However, most of respondents revealed some enabling factors that made them to choose Tanzania as their study destination. For instances, respondent from Ethiopia and Kenya commented on the issue of political stability and geographical factors while selecting Tanzania as their study destination

"While most of students would want to go to Asia or Europe for their further studies, I considered the advantage of political stability and state of tranquility in Tanzanian political system which I believed it would have a significant impact in higher education systems" (Cassia)

The influence of geographical location and proximity was mentioned by respondent from Kenya as follows;

"I considered the advantage of geographical location and proximity to my home country as a reason to come to study in Tanzania... apart from being able to visit my family time to time... these countries have common academic challenges which I assumed that any advisor can be an expert in my research area" (Maggy)

Additionally, Swahili language was mentioned to be as enabling factor for choosing Tanzania as a study destination. Swahili language is viewed as lingual franca of the East African Community (EAC) countries and other areas in the Africa Great Lakes region. Ayiro et al. (2023); Provini (2019) mentions that Swahili is also

one of the working languages of the African Union (AU) and of the Southern African Development Community (SADEC). One of the respondent commented as follows;

"My initial perceptions were influenced by desire to travel to Tanzania and learning Swabili language as well as Swabili culture... we all aware that Swabili is the lingua franca of East and central Africa region, thus I assumed that knowing this language can open up opportunities for communication with a large number of people" (Papie)

Moreover, trying to adapt to a new way of doing things was also mentioned as a pre-perception on selecting Tanzania as a study destination. Such sentiments were acknowledged during the interviews as follows;

"My academic journey and growth has been influenced by diverse experiences, thus, decision to come to Tanzania was installed by the cultural intersections cravings that enhance my psychological and socio-cultural interaction" (Mussa)

Also, pre-perceptions of the respondent were shaped by the nature of their studies. This was acknowledged by the student from Finland as follows;

"I am doing a comparative study on culture between East African and some of Nordic regions, thus, Tanzania seems to be a center of EAC as it eases to navigate to other countries from here..." (Paul).

Post-arrival perceptions

Study found that post-arrival perceptions on research and supervision capabilities has significant influence on the effectiveness of international postgraduate student's academic and professional development. Findings revealed that international postgraduate students often perceive research and supervision as crucial components for any postgraduate program as such capabilities enhance their knowledge and being able to contribute to their fields. The following are the direct quotes from the participants;

"Being competent in research and supervision is like a stepping stone to our further academic opportunities" (Thando)

"These two skills play a significant role in our academic engagement and career advancement" (Tuddo)

"Research and supervision capabilities are viewed as an opportunity to develop essential skills such as problem solving, data analysis as well as critical thinking" (Cassia)

"In essence, the competence in these two skills is a means towards our employment in academic industry" (Maggy)

In addition, study also found that participant's post-arrival perceptions on research and supervision are multifaceted and has a significant influence on their academic journey.

"Research and supervision capabilities pave the way towards collaboration with peers from diverse faculties as well as industry professionals...thereby, expanding our professional networks" (Coco)

"The two skills foster resilience and adaptability as we learn to handle setbacks and adapt diverse approaches on dealing with them" (Papie)

"Research and supervision capabilities are perceived to be push gear towards our management skills as we are engaging ourselves with tasks such as planning, organizing and executing tasks effectively" (Paul)

Speaking of the perceptual impacts of international postgraduate students to their research and supervision capabilities, research shows that there are critical indicators on the development of deep expertise which is only based on the level of researching and supervising of students (Amani et al., 2022; Chen, 2023). This implies that the perception that students grasp throughout the study timeframe and the skills gained by being involved in research and supervision enhance their ability to modify and develop their own research methods (Fussy, 2024; Kadikilo et al., 2023). Balandya et al. (2021) alludes that positive perceptions of research and supervision capabilities help students to be able to describe and understand the concepts of their research areas, which contribute to their broader understanding of the purpose of postgraduate programs.

Strategies to enhance international postgraduate student's research and supervision capabilities

Second objective of the study was to examine challenges that hinder the enhancement of international postgraduate students' research and supervision capabilities. In this section participants managed to bring specific attention to the challenges they are facing in Tanzania universities. It has been noted that these challenges are extended beyond academic matters to circumstances such as financial circumstances and social involvement. In this study we begin by providing rationale challenges and direct quotes for suggested supportive strategies that need to be employed to address the learning and lived experiences of international postgraduate students in Tanzanian universities.

Literately, diverse traditional academic challenges faced by international students around the world have received considerable attention. Studies on this matter aimed to improve the whole teaching and learning process for them. However, the issue of their research and supervision capabilities have received a less attention compare to other academic issues. Through in-depth interviews and reflective writing employed to this study, findings revealed several challenges in research and supervision aspects. The findings of the study revealed that addressing these challenges requires a comprehensive approach that not only involve the functions within the HEIs only but also policy adjustment, supportive mechanism and practical interventions. Presentation of these challenges and suggested strategies is as follows;

Limited access to research infrastructure

Following the decision to study in Tanzania, participants entailed limited access to research infrastructure, that was also mentioned by Kanyopa and Makgalwa (2024b); Tundui (2020) as the main cause for unrealized valuable research idea and innovation. Respondent of the study stipulate that this challenges in Tanzanian HEIs is common and it contributes to a widening knowledge gap and prevent them from engaging in interdisciplinary collaboration and preventing them from influencing their field (Kadikilo et al., 2024; Mohammed, 2023). To address this challenge, the respondents commented as follows;

"It is important for private sectors to invest in strengthening research infrastructures such as laboratories and ensure that facilities are regularly updated and well maintained" (Tuddo)

"Government and private sectors should work collaboratively to make sure that HEIs are full equipped with modern research equipment such as drowns" (Papie)

The idea of modern research equipment was also mentioned by Kurgat (2023); Provini (2019) that the leverage access to the research infrastructure through digital technology is the means to empower researchers to conduct impactful experiments and being able to collaborate with colleagues around the world.

Lack of information and guidelines in the supervisory system

Another challenge that was mentioned by the participants of the study is lack of information and guidelines in the supervisory system. Mohammed (2023); Moshtari and Safarpour (2024) mentioned that clear guidelines on the research and supervision are crucial for international students, as they becoming aware of what they are expected to do. Additionally, lack of clarity on the supervision scope is cited in Amani et al. (2022); Tundui (2020) as a big problem in most of African HEIs. To address this challenge, the participants pointed out that;

"There is a need for each of Tanzanian HEIs to develop supervision policies and clear guidelines that will ensure a consistent and high-quality supervision practices" (Cassie)

"I think authorities in Tanzanian universities need to provide time to time training programs for supervisors to enhance best practices in mentoring and supervising postgraduate students... especially us international students since we are not familiar with Tanzanian education system" (Thando)

"For me, I think universities in Tanzania should encourage co-supervision with lecturers from our home countries as this will widening a range of diverse perspectives and support to international students" (Paul)

The importance of co-supervision and supervisory guidelines cannot be over emphasized, because, these two aspects were mentioned in Kadikilo et al. (2023) as essential strategies that have strong connection with enhancing students' research skills and ability to tackle any challenge when conducting their studies. Clarity on

supervision scope is also stated by Ayiro et al. (2023); Nziku et al. (2022) as the crucial strategy that supports, encourages and inspires supervisors to expand their research portfolio and share their intellectual wisdom with students easily.

Toxic relationship between supervisors and students

Bad relationship between the supervisor and students was also mentioned as a challenges for enhancing international student's research and supervision capabilities. Participants mentioned their bad experiences with their supervisors in Tanzanian universities including manipulative thoughts, over controlling of the research process, disparage comments which they claimed to destroy their thinking ability, self-esteem and confidence as students. To address this challenge, participants of the study suggested the following strategies;

"I think having an open communication channels will help... things like regular meetings in which both parties will discuss issues and structure the way forward together" (Maggy)

"Mmm... I feel like anonymous feedback mechanism will empower students to express their concerns without fear of reprisal... this will enhance our supervisors' level of accountability" (Cassia)

"For me... I think clear expectations, boundaries and role clarification will help to avoid misunderstanding... as these will clearly define the roles and responsibilities for both parties" (Coco)

"Continuously workshops for communication skills will improve our interpersonal skills which is very important in building good relationships with our supervisors" (Thando)

"Universities need to conduct regular performance reviews of the supervisors based on student's overall performance" (Paul)

Mussa agreed with Paul, and further suggests;

"The performance review should be implemented in mid-year and end of an academic year to gather diverse perspectives on supervisor's effectiveness and if there is any area for improvement" (Mussa)

"Regularly professional development will enhance supervisor's management, teaching as well as leadership skills... as leaders of our research studies they need to be patient and have mercy on us... as we are not yet graduates, we are on the journey of becoming" (Papie)

"I will suggest the team work... this builds a positive environment and encouraging friendship between the supervisor and students" (Tuddo)

Inherently, the relationship between the supervisors and students was mentioned in Wolhuter (2023) as a major determinant factor in postgraduate program success. (Mohammed, 2023, p.60) states that the relationship between a "supervisor and postgraduate student is crucial in determining the success or failure of the student".

International student's attitudes and personal issues

Body of literature revealed that prior knowledge, skills, commitment and attitudes play crucial role to international postgraduate student's studies (Alemu, 2023; Chen, 2023). Participants of the study managed to share some of challenges that are related to their own personalities this including; lack of motivation, incompetent in English language, inadequate skills to attend or address the comments given by their supervisors as well as limited computer skills. To address this challenges, participants suggested as follows;

"I think inadequate traditional teaching methods are the causes of our demotivation... therefore, I would suggest that Tanzanian universities should replacing the traditional methods with more advanced and effective ones" (Maggy)

"Use of colleague's energy to support each other will improve our skills while simultaneously curbing our cockiness" (Tuddo)

"Supervisors should be accessible and sensitive to us... being away from home is not easy thing... some of us are going through a lot and we do not have anyone to talk to" (Mussa)

He continued *“They should try their best to build us and not destroy us emotionally with bad comments, rather, they should provide us with constructive research inputs”* (Mussa)

“I think universities and their faculties should provide international students with enough information regarding the courses they selected... to be aware of the contents, assignments as well as to be familiar with their supervisor’s research areas” (Coco)

According to Amani et al. (2022); Ayiro et al. (2023) quality supervision has the potential to make a significant contribution to the quality of graduate research. This implies that, supervision of international students is concerned with the mechanisms of ensuring that these students make critical progress towards the completion of their postgraduate programs. Moshtari and Safarpour (2024, p.90) alludes that “mutual respect, expectations and responsibilities for each part should be beneficial while stipulating a crucial factor for successful completion of the postgraduate program”. On the other hand, research and supervision are influenced by aspects such as ethical consideration, mutual relationships and clear expectations for respective roles and their interaction between the supervisor and student (Kadikilo et al., 2024). Therefore, it is important for both to be diligent and explicitly when they work together. All in all, this study believes that by implementing the strategies suggested by the participants, Tanzanian universities can create a more productive and positive learning environment, ultimately, enhancing the international postgraduate student’s research and supervision capabilities.

Significances of enhancing international postgraduate student’s research and supervision capabilities

Amidst the suggested strategies, participants also touched on the significances of enhancing research and supervision capabilities to international postgraduate students. This study employed the capabilities approach theoretical framework in which the main focus is to enhance the ability of students to transform their capabilities to functionings. In this study, this could be mitigated through a large extent of the knowledge and skills that international students gained throughout their postgraduate program in Tanzanian universities and being able to apply them into the real world contexts. Balandya et al. (2021); Nziku et al. (2022) affirm that it depending on the quality of supervision provided to the students, but, enhancing research and supervision capabilities for students is one of significant importance, as it could stand as an enabling factors for academic job markets. Coco’s comment is an example of how research and supervision capabilities could play a significant role to their career progression.

“Research and supervision competence significantly impact our values skills such as project management, data analysis and scientific writings, which are crucial for careers in academia” (Coco)

“In reality graduates with strong research and supervision capabilities are hot cakes in the job market since they are better equipped to produce high quality academic works” (Maggy)

Similarly, research and supervision capabilities were revealed to significantly enhance critical thinking and analytical skills to students. Such sentiments were acknowledged during the interview as follows;

“These two competencies allow postgraduate students to tackle- real world problems critically and being able to develop solution that have effective impacts on their societies” (Thando)

“Capability in research and supervision increases student’s engagement and being able to apply their knowledge beyond text books into real world issues” (Paul)

Furthermore, the study found that enhancing of research and supervision capabilities improve an institutional reputation and fosters a collaborative academic environment and encouraging interaction between students of diverse faculties.

“Research and supervision capabilities provide us with a strong institutional competition ... this is when our faculties strive to enhance their overall reputations and academic ranks” (Cassia)

“Institutions known for strong research and supervision programs often attract talented students around the world” (Mussa)

Findings of the study also revealed that research and supervision capabilities promote networking opportunities as well as professional connections.

"Being capable or competent in research and supervision often involve collaboration with other researchers, academic and other professional in and out our fields... which help us a lot in building valuable networks" (Tuddo)

"That's true... these capabilities help us to be able to present our research papers at conferences as well as publishing some articles, which gives us exposure and recognition in our fields" (Papie)

Chen (2023); Kurgat (2023) mention that research and supervision are important capabilities because they allow researchers to facilitate the distinct reflections on their perspectives and other researcher's perspectives. This study maintains that prioritizing the enhancement of international student's research and supervision capabilities in Tanzanian HEIs not only improve institutional reputations to Tanzanian universities, but also, the educational experiences of these students and their contribution to the broader goal of knowledge creation, societal advancement and their professional progression.

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

"The internationalisation of higher education has resulted in movement of students globally in searching for knowledge and higher qualification" (Banda & Zungu, 2024, p. 145). This study aims to explore the strategies for enhancing international postgraduate student's research and supervision capabilities strategies in Tanzanian HEIs. Consequently, findings from the first theme stipulate some of enabling perceptions that pushed international students to relocate to Tanzania to pursue their postgraduate programs. However, the second theme revealed some challenges facing international students while studying their postgraduate programs in Tanzanian universities, further, this theme specifies proposed strategies that Tanzanian universities can use to enhance the international postgraduate student's research and supervision capabilities. Ultimately, the study persists the importance for the enhancement of research and supervision capabilities in Tanzanian HEIs. Hence, the study asserts that research and supervision are crucial capabilities as they tend to equip postgraduate students with knowledge, skills and attitudes that help them to navigate successful in their professional journeys.

The study's main limitations were that only eight international postgraduate students were involved in the study, whilst, the Tanzanian Higher Education Statistics (THES) report of 2023 revealed the total number of international postgraduate students from the EAC enrolled for 2022 academic year in Tanzanian HEIs for Master Degree are 285, and Doctorate Degree are 90. This report goes further and mention the number of students from other African nations enrolled in Tanzanian HEIs for Master Degree are 142, and Doctorate Degree are 70. Furthermore, students from European and Asian nations enrolled in Tanzanian HEIs for Master Degree are 427, and Doctorate 159. The report has further acknowledged that the percentage of international postgraduates has increased from 15.83% in 2015 to 29.94% in 2022. Another limitation is that this study was conducted in four universities found in Tanzania mainland regions, While, the national Panel Survey (NPS) of 2023 reported the existence of 42 HEIs country wide (mainland and Zanzibar).

Future studies would therefore benefit from widening the scope of their participants and employ a mixed methodology that will allow them to collect both qualitative and quantitative data of the researched issue. Another possibility would also be to compare learning and lived experiences of international postgraduate students in universities found in Tanzania mainland and Zanzibar Island.

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CONFLICT OF INTEREST STATEMENT

Both authors declared that they have no conflict of interest

DATA AVAILABILITY STATEMENT

The data that support the findings of the current study are available from the corresponding author upon reasonable request.

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