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Peer Mentoring Practices and Research Performance among Academic Staff in Higher Education: Evidence from Tanzanian Public Universities

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ABSTRACT

While peer mentoring has been identified as one of the critical development activities in higher education institutions to improve academic research capacity of the academic staff, there is little empirical evidence of the individual aspects of peer mentoring that affect the research performance of academic staff in Tanzanian public universities. This study examined peer mentoring practices of mentoring support, knowledge sharing and professional development effect on research performance of academic staff in Tanzanian public universities. The study was anchored on Communities of Practice Theory, which was used to conceptualise peer mentoring as a collaborative academic process where participants provide each other with knowledge, research support and enhance professional research skills in scholarly communities. The study was quantitative using a cross-sectional survey research design. The target sample was 374 academic staff obtained using simple random sampling. Data were gathered based on a structured questionnaire. Analysis was based on 302 returned valid questionnaires from academic staff members from selected public universities in Tanzania. Partial Least Squares Structural Equation Modelling (PLS-SEM) with SmartPLS 4 software was used for data analysis to investigate the relationships between the constructs. The results indicated that the three aspects of peer mentoring, had positive and significant effects on research performance. Knowledge sharing demonstrated the strongest predictive positive and significant effect on research performance, followed by mentoring support and with the least but still strong support being professional development. The study results indicate that academic staff who are actively involved in supportive peer research communities, with ongoing knowledge sharing and collegial academic interactions, are more likely to enhance their research engagement, scholarly collaboration, and research productivity. The study adds to the existing body of higher education literature and mentoring literature by offering empirical evidence of the multi-dimensionality of peer mentoring and research performance implications in a developing higher education context. The results also contribute to the expansive use of Communities of Practice Theory when trying to understand the influence of collaborative academic space on academic research results in public universities. The study suggests that university administrators and policy makers institutionalize structured peer mentoring mechanisms, improve collaborative knowledge-sharing mechanisms and strengthen

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the research culture of universities in the sense of sustainable cooperation for realising scientific research performance.

Keywords: Knowledge sharing, mentoring support, peer mentoring, professional development, research performance, public universities

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INTRODUCTION

The world is becoming more and more demanding of higher education institutions to be more productive in research, innovative, and competitive on the global scale in the context of the expanding knowledge-based economy (Alzen *et al.*, 2021). Universities will not only be expected to create new knowledge but also to contribute to the national process based on the high-quality research products, such as publications, grants, and postgraduate supervision (OECD, 2020; World Bank, 2019). Consequently, the issue of enhancing research performance among academic employees has become one of the key strategic priorities of higher education systems on the international level (Double *et al.,* 2020).

To fulfil such requirements, different practices related to human capital development have been embraced in universities in a bid to enhance academic research capability. Peer mentoring is one of these practices that have become very important in assisting the academic staff to navigate their way through the research processes, develop scholarly networks, develop publication skills, and find research funding (Arco-Tirado *et al.,* 2020; Janssen *et al.,* 2021). Peer mentoring practices are the relationships of colleagues with each other, where there is no hierarchy, and the academic supports the colleagues via sharing of knowledge, feedbacks, conducting research jointly, and by offering guidance to others (Lunsford *et al.,* 2017) According to existing studies, peer mentoring can have a positive impact on the productivity of research, career development, and academic interest (Hakro & Mathew, 2020).

Over the last several years, the topic of mentoring has become a strategic human resource and academic development practice in universities that the scholars of higher education started to pay more attention to (Horta and Li, 2023; Mremi *et al.,* 2023). This trend has led to increased number of empirical studies on mentoring relationships and their outcome, especially about research performance, job satisfaction and academic retention. Nevertheless, even with this accumulated literature, researchers have pointed out that additional empirical data is required, which would explore mentoring more as a system of multidimensional interactions than as disaggregated interactions (Nuis *et al.,* 2023; Balandya *et al.*, 2022). Furthermore, it has been suggested that the intricate nature of the relationship between mentoring practices and research outcomes should be better taken into account by using sophisticated methods of analysis, which include Partial Least Squares Structural Equation Modeling (PLS-SEM).

Although mentoring has been a growing area of interest, there are still gaps in the literature. The available evidence on peer mentoring and research performance is limited to higher education in developed countries, and there is not as much available evidence in Tanzanian public universities (Seery *et al.,* 2021). Moreover, many studies consider mentoring as a general practice, and do not break down mentoring support, knowledge sharing and professional development. Also, there are few studies that use PLS-SEM to assess multidimensional mentoring models and examine the relative power of these dimensions in the prediction of research performance.

These gaps are significant in the Tanzanian context because public universities are still facing challenges with low funding for research, and uneven research capacity among their academic staffs and high teaching loads (URT, 2021). Despite the national policies that focus on research and innovation, there is little research that examines the mechanisms by which peer mentoring can enhance academic research output. Thus, it is important to explore this question of whether and how certain peer mentoring practices impact the research output of public universities.

Accordingly, this study aimed at investigating the effect of mentoring support, knowledge sharing and professional development on research performance of academic staff in Tanzanian public universities in Tanzania. The study is anchored in the Communities of Practice (CoP) theory in which peer mentoring is conceptualised as a community-based academic discipline that staff engage in, share academic understandings, receive academic support from their peers, and build research skills (Nuis *et al.,* 2023; Lunsford *et al.,* 2017). The research used the Partial Least Squares Structural Equation Modeling (PLS-SEM) to empirically test the hypothesised relationships, to address methodological demands of more rigorous multivariate research in the field of higher education research. By using PLS-SEM, the study adds empirical evidence to a peer mentoring model in a multidimensional paradigm in a developing higher education context to offer practical guidance for university managers and policy makers looking to enhance the performance of research through the implementation of structured collegial development practices.

LITERATURE REVIEW

Theoretical review

Communities of Practice (CoP) theory

This study is underpinned by Communities of Practice (CoP) theory, which postulates that learning is a result of members of a community negotiating meaning and developing competence through sustained interaction, by engaging in practices (Farnsworth *et al.,* 2016; Lave & Wenger, 1991). The theory is well suited for peer mentoring because academic research capacity is not built when the researcher works alone, but when the researcher is engaged within a group of peers, is involved in a writing group, has access to peer-review, is connected in a group of methodological discussions and is associated with a network of scholars.

Mentoring support in this study is an example of guided participation in an academic community in which experienced, or research active colleagues offer feedback, encouragement, and practical support to others. Knowledge sharing is the movement of research ideas, methods, publication venues and research standards through the community. Professional development is the process of moving from peripheral and less confident engagement in research to full engagement in research, via workshops, joint writing, conferences, grant writing support, and collaborative inquiry (Le *et al.,* 2024; Horta & Li, 2023; Sarabipour *et al.,* 2022).

CoP theory provides the most coherent explanation for all three peer mentoring dimensions. CoP introduces a single mechanism to understand how mentoring support, knowledge sharing, and professional development are linked: when academic staff engage in ongoing communities, they become a community of research knowledge, practices, and identities; and research performance increases as a result of their participation.

Furthermore, it provides a coherent theoretical position in this study because it has the characteristic of being substantively interesting, closely matched to the constructs, parsimonious, applicable to higher education, conceptually rigorous and empirically testable. It is interesting because it moves beyond an explanation of research performance based on the individual alone to one based on research communities. It fits the study as all predictors are peer-based practices, is parsimonious since one theory explains the whole model, is applicable since universities are knowledge intensive communities, is conceptually rigorous since it connects participation, shared practice,

competence development and is testable, as each peer mentoring dimension is operationalised as a reflective latent construct associated with research performance.

Conceptualisation of peer mentoring

Recently, the global knowledge economy has placed pressure on universities to boost their research productivity, innovation, publications, and institutional competitiveness (Thornton, 2025; Horta & Li, 2023). Peer mentoring has increasingly become more of an effective professional development tool that enhances research capability and scholarly involvement of academics in higher education. Implementing peer mentoring programs in higher education institutions to promote research, collaboration, innovation, and professional growth has become inevitable.

Peer mentoring refers to two or more professionals of similar job levels collaborating and exchanging resources, professional experiences, and information to enhance learning, research results, offering guidance, and feedback (Sarabipour *et al.,* 2022). It is based on mutual support, similar learning experiences, communication, collaboration, and collective learning (Balandya *et al*., 2022; Nuis *et al.*, 2023).

Thus, the study adopts a multidimensional conceptualisation of research performance as a configuration of scholarly outcomes, which includes research productivity, research quality and research impact. These three dimensions are analytically relevant as they capture the nature of academic research contribution in higher education institutions in different ways: the quantity of scholarly outputs, the scientific rigorousness and quality of research outputs, and the impact of research outputs on academic scholarship, policy, practice, and society. The differentiation of these dimensions enables the study to explore if peer mentoring practices imply different meanings for each of the dimensions of academic staff research performance in Tanzanian public universities (Horta & Li, 2023; OECD, 2023; Teferra & Altbach, 2022).

Mentoring support (MGS)

One of the practices of peer mentoring is mentoring support. Academic, professional and interpersonal support from academic peers to help them to engage in research, knowledge and skill building and career progression in higher education institutions (Le *et al.,* 2024; Crisp & Cruz, 2009; Kram, 1983). Possible support in mentorship includes proposal writing, journal publications, conference attendance, collaborative research, grant proposals, and positive feedback on research (Almulla, 2023). Mentoring can lead to increased research productivity, engagement and institutional research culture within higher education institutions as pointed out by Horta and Li (2023).

Knowledge sharing (KNS)

Knowledge sharing, as another dimension of peer mentoring, involves the sharing and exchange of scholarly ideas, methods, research experiences, academic resources, and professional knowledge between faculty at postsecondary institutions (Sarabipour *et al.,* 2022; Hooff & Ridder, 2004; Nonaka, 1994). This kind of interaction helps to build research skills, develop collaborative learning, and encourage intellectual exchange among faculty members (Sarabipour *et al.,* 2022). This enhances methodological knowledge, interdisciplinary research involvement, and network of the university personnel. Seery *et al.* (2021) and Mgaiwa and Kapinga (2021) argue that knowledge sharing plays a role in scholarly collaboration and innovation and facilitates the collective academic development of academics through exchange of research experiences and research competences, hence, enhancing research competence. This exchange in academic settings could enhance research quality, publication, and institutional scholarly performance, through ongoing intellectual interaction and academic collaboration.

Professional development (PRD)

Professional development entails those activities whose purpose is to improve the academic skill levels, research competencies, scholarly development, and professional development of academic staff in higher educational institutions (Horta & Li, 2023; Avalos, 2011; Guskey, 2002). Such activities include research training sessions, participation in conferences, training on publications, conducting research collaborations, mentorship programs, and even academic networking (Pololi *et al.,* 2023). Therefore, through such activities, individuals are able to develop research competencies, academic self-belief and academic growth in university contexts. According to Kayombo (2021) and Horta and Li (2023), professional development facilitates the development of academic competencies and research engagement by promoting the scholarly skills and identities in academics. Therefore, professional development activities facilitate continued learning and growth as well as increased research productivity in the university context.

Research performance in higher education

Research performance is generally referred as the ability of academia personnel to produce academic products and various other research contributions (Abramo & D'Angelo, 2022; Moed, 2005). Research performance is frequently correlated with publication productivity, research quality, research influence (measured by the number of citations), acquisition of research grants, conference attendance, postgraduate supervision, collaboration and other scholarly activities in the academic world and society (Double *et al.,* 2020; Bornmann, 2013). In higher education institutions, the performance of research is sometimes considered a multidimensional construct, as the contribution of research should not be sufficiently measured by the number of publications.

Based on this, the study defines research performance as a perceived multidimensional scholarly outcome configuration that includes research productivity, research quality and research impact. These three dimensions are analytically relevant, as they represent different aspects of academic research contribution in HEIs: quantity of scholarly products; quality and scientific rigour of research products; and impact of research products on academic scholarship, policy, practice, and society. The differentiation of these dimensions enables the study to assess if peer mentoring practice has different implications across different dimensions of research performance among academic staff in Tanzanian public universities (Horta & Li, 2023; Teferra & Altbach, 2022; OECD, 2020).

Higher education and Tanzanian public universities

Higher education is generally defined as post-secondary education provided by universities and colleges, and other tertiary institutions that focus on the development of advanced knowledge, professional skills, research capacity and innovation, through teaching, research, and community engagement activities (Teferra & Altbach, 2022; UNESCO, 2021). Higher education institutions have important role in national development in teaching, research and innovation, consultancy, and community service. The main role of universities is to generate new knowledge and produce skilled human capital and as a result of research and innovation activities, to contribute to socio-economic transformation (Farnell, 2022; Teferra & Altbach, 2022). Therefore, higher education research performance is a key factor in its institutional competitiveness and academic quality.

Tanzanian public universities refer to the established, funded, and regulated higher learning institutions by the Government of Tanzania (GoT) through the Ministry of Education, Science and Technology (MoEST) and the Tanzania Commission for Universities (TCU) (TCU, 2023). These are involved in teaching, research productivity, consultancy services, innovation, and community service for national development (TCU, 2023). In Tanzania, there are still problems in accessing research funding, academic publication, infrastructure, and increased workload of academics in public universities (Mgaiwa, 2021).

Nonetheless, public universities are the primary producers of research and generators of academic knowledge in Tanzania despite the aforementioned difficulties. This has led to the growing importance of institutional practices, including peer mentoring, collaborative learning, knowledge sharing and professional development, as ways to enhance research output of faculty. Tanzania's public universities are therefore the focus of this present study as they offer a context to study how the practices of peer mentoring affect research performance of academic staff in public universities.

Empirical literature review and hypotheses development

Peer mentoring and research performance

Peer mentoring has proved to have significant effect on research performance competence among academic staff in higher education institutions (Horta & Li, 2023; Sarabipour *et al.,* 2022). This is in line with the Communities of Practice Theory that knowledge, professional competence and academic learning are the outcomes of participation, interaction, reflection and shared practice in professional communities (Wenger, 1998, 2002). Improving research knowledge is important for research productivity, quality and impact in HEIs. Some of the initiatives identified to improve research in HEI's include mentoring support, knowledge sharing and professional development (Thornton, 2025; Horta & Li, 2023).

The empirical literature on peer mentoring practices reveals mixed effects on research performance. Some research show positive effect and other show negative effect not on research performance directly but on motivation to study and learning outcomes (Nuis *et al.,* 2023; Balandya et al., 2022). However, these often link peer mentoring with an increase in publications, research grants, capability on methodology, and academic self-confidence among academics (Sarabipour *et al.,* 2022; Thornton, 2025). These relationships can be strong or weak, however, determined by the institutional research culture, availability of resources, load conditions, mentoring relationships, and the organizational support within universities (Teferra & Altbach 2022; Mgaiwa 2021).

In addition, there is a significant body of literature that focuses on mentoring, cooperation, and academic growth independently, or as a multifaceted concept of academic capacity building, but lacks an explanation of how the three roles i.e., mentoring support, knowledge sharing, and professional development, contribute differently to the multidimensional performance of research (Horta & Li, 2023; Sarabipour *et al.,* 2022). Majority of studies also define research performance more narrowly as the number of publications and devote little attention to the quality of research or its impact in terms of analytically distinct measures of scholarly research (Abramo & D'Angelo, 2022; Bornmann, 2013). Moreover, many of the existing studies come from higher education systems in the developed world, which are generally endowed with relatively more effective research infrastructure and institutional support, which reduces contextual applicability in African public universities with significant institutional constraints, funding limitations, and heavy teaching loads (Teferra & Altbach, 2022; Mgaiwa, 2021).

Mentoring support and research performance

Mentoring support as one of peer mentoring practices has become one of the most important factors for improving research performance among academic staff in institutions of higher learning. Empirical evidence shows that guidance, feedback, and emotional support as highly effective in enhancing research productivity, quality, impact, and academic confidence with the help of mentoring support (Almulla, 2023; Thornton, 2025). This is in agreement with Communities of Practice Theory's perspective, that, individual competence and professional growth emerge through active participation, involvement, mutual engagement, and interaction within academic communities (Wenger, 1998). Accordingly, in university settings, effective mentoring support may facilitate research productivity,

quality, and impact by enabling academic staff to participate in collaborative research activities and initiatives, and shared academic learning processes.

Moreover, empirical research supports this perspective, though results vary across institutional settings. Todoran (2023) for example, argue that scholars who obtained continuous mentoring assistance indicated greater degrees of research efficiency and increased publication levels. Similarly, Pololi *et al.* (2023) found that mentoring relationships that offer research support significantly increased grants and collaborative research outputs. These results indicate that mentoring support is a form of development initiative that enhances research related competencies and motivation amongst academic employees.

However, other studies have indicated contrary relations between mentoring support and research productivity, especially in resource-crunched environments. Balandya *et al* (2022), in sampled African universities, established that mentoring was informal, but its effectiveness on research output was minimal, as there were too much teaching work and insufficient institutional support. Similarly, Teferra and Altbach (2004) observed that in African universities mentoring effectiveness is usually compromised due to structural and funding limitations. These inconsistencies suggest a complex relationship between mentoring support and research performance, and that the relationship may vary according to contextual and institutional conditions.

Although existing empirical literature offers invaluable insights into mentoring and research engagement, many studies examine mentoring as a broad aspect without specifically distinguishing mentoring support as a distinct peer mentoring dimension associated with multidimensional research performance. Accordingly, the current study hypothesises that:

H1: Mentoring support has a significant influence on research performance among academic staff in Tanzanian public universities.

Knowledge sharing and research performance

It is expected that knowledge sharing would impact research performance as the sharing of research ideas, experiences, method, and academic resources could enhance research capacity, innovation, and intellectual development of scholars (Nonaka, 1994; Van den Hooff & De Ridder, 2004). Cooperative learning, peer cooperation and shared academic knowledge are common factors that influence research productivity and the quality of scholarship in higher education institutions. Scholars can enhance their methodological skills, publication capacity and research visibility by engaging in peer discussions, group research efforts, and scholarly networking.

This is in tandem with the Communities of Practice Theory which looks at the construction of knowledge as a continuous participation and interaction in a scholarly community which allows members to share experiences, research practices, methodological insights and enhance competence and scholarly performance together (Wenger *et al.*, 2002). In this sense, joint knowledge sharing among scholars could contribute to research productivity, research quality and research impact by joint inquiry and scholarly learning within a community of scholars. Many studies have confirmed the positive association between knowledge sharing and research output, albeit with variations in context.

Given this, Bengesai *et al.* (2023) concluded that the knowledge sharing among peers had a positive effect on the publishing of the junior academic researchers. Likewise, Mgaiwa and Kapinga (2021) reported that the academic staff involved in peer knowledge sharing also had higher levels of rigour in their publications. Similarly, Wang et al (2023) revealed that knowledge sharing contributed to the development of confidence, innovation and intellectual development of academic staff. However, other studies revealed the pivotal role of institutional context and organisational support to knowledge sharing. For example, the study by Mremi *et al*. (2023) propose that poor

infrastructures for research support, poorly organised scholarly databases and heavy workload of lecturers are reasons for failure of knowledge sharing programmes in African universities. Also, majority of African universities lack a research culture nor have institutional resources for collaborative scholarly interaction (Teferra & Altbach, 2022). These results suggest that knowledge sharing can have a positive impact on research performance, but this impact can differ depending on institutional contexts and research environments.

Although there is an increasing body of literature on collaborative learning and academic interaction, the majority of the work has focused on knowledge sharing as an organisational behaviour issue or a general dimension of research performance across multidimensional research performance in HEIs, instead of focusing on the dimension of peer mentoring in academic research. Moreover, there is a limited empirical literature that explores the effect of knowledge sharing on research productivity, research quality and research impact at the same time in Tanzanian public universities. Based on this, the current research proposes that:

H2: Knowledge sharing has a significant influence on research performance among academic staff in Tanzanian public universities.

Professional development and research performance

Professional development is typically associated with an increase in research performance, as research training, attending conferences, mentorship programmes, collaborative learning, and academic networking can enhance scholarly skills, research capacity, and future professional development of faculty members (Avalos, 2011; Guskey, 2002). Professional development programmes are considered as valuable tools for enhancing publication skills, proposal writing skills, collaboration in research, and general research productivity in higher education institutions. With regard to Communities of Practice Theory, professional development is regarded as the ongoing development of competencies, academic identity, and research capability in sustained, collaborative academic settings where scholars engage in shared practice and scholarly interaction (Wenger, 1998). In the academic world, professional development can thus contribute to research productivity, research quality, and research impact by helping academics to build their methodological capacity, scholarly involvement, and facilitation of their involvement in collaborative research.

This correlation is noticed in numerous studies but is context specific. For example, Todoran (2023) found academics that operated in structured professional development programmes were found to have a significant improvement on research skills and publication productivity in European universities. In turn, Horta and Li (2023) reported that university staff professional development resulted in better academic identity, research engagement and scholarly productivity. Further research training and academic mentoring programmes improved the research grant acquisition and proposal writing skills of academics in the African context as reported by Kayombo (2021). However, professional development may not necessarily lead to better research performance when the institutional conditions are not conducive as some studies reveal.

However, professional development and growth of faculty members in many African universities is impaired by poor research facilities, inadequate funding for research, administrative overload and poor support systems for faculty members (Teferra & Altbach, 2022). Similarly, Mgaiwa (2021) argues that although academic research is promoted through institutional activities for staff development, structural challenges and academic pressures still constitute a limiting factor in the academic research engagement. The differences imply that the institutional capacity and supportive research culture are important factors that shape research effectiveness professional development.

Previous research can be used as evidence in understanding professional development and academic productivity, but many studies on professional development, with or without relating to academic productivity are broad studies

that do not specifically analyse the contribution of professional development as a dimension of peer mentoring that affects the multidimensional research productivity. Moreover, there is very limited evidence of how professional development affects the productivity, quality, and impact of research all together within the Tanzanian public universities. Based on this, the study hypothesises the following:

H3: Professional development has a significant influence on research performance among academic staff in Tanzanian public universities.

Conceptual Framework

The conceptual framework demonstrates the theorized relationships between the practices of peer mentoring and the research performance of academic staff in the Tanzanian public universities. The conceptualization of peer mentoring practices is developed as multidimensional construct consisting of mentoring support, knowledge sharing and professional development as exogenous latent variables. Research performance is considered an endogenous latent variable which is a measure of academic outputs in terms of publications, research projects, grants, and postgraduate supervision.

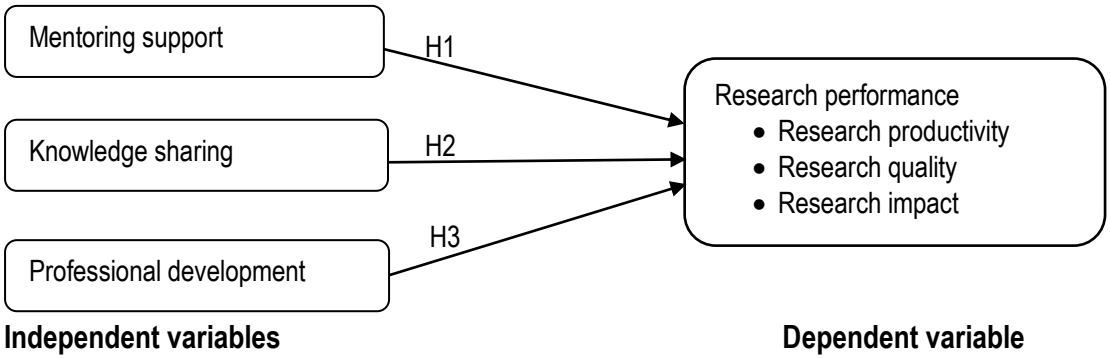

Figure 1: Conceptual framework

METHODS AND PROCEDURES

Study design

The study adopted a cross-sectional research design, which involved collecting data of the respondents in a single instance. It is a suitable design that is applied in studying the relations between variables and testing of hypothesis on a theoretical model using statistical methods (Almulla, 2023). The rationale of using cross-sectional design is that it is economical in capturing the perceptions and experiences of academic personnel towards peer mentoring activities and research performance within the time and resource constraints (Hair *et al.,* 2024; Kock & Hadaya, 2018).

Study area

The research was done in state universities in Tanzania that are among key centers of research, innovation and developing human capital in the country. In Tanzania, teaching, research, and consultancy are the three main functions that public universities undertake and thus they offer the right environment in studying research performance among academic employees (Buberwa *et al.*, 2024). The regulatory and policy frameworks that govern these universities are similar under the Ministry of Education, Science and Technology (MoEST) and the Tanzania Commission of Universities (TCU) that facilitate the provision of academic standards, research practices and quality assurance of the institutions (Merga & Mason, 2021). Additionally, public universities share similar pressures like low level of research funding, excessive teaching load and growing demands to produce publications thus are the right place to study issues that affect research performance, including peer mentoring practices.

Target population, sample size and sampling techniques

The target population of the study comprised of 5,709 academic staff in the selected public universities (TCU, 2023). Yamane (1967) formula for determining sample size was used, $n = N/[1 + N(\varepsilon^2)]$, where n is the required sample size, N is the population size and e is the margin of error. With N = 5,709 and $\varepsilon = 0.05$, the required target sample was 374 respondents. The rigorous data screening revealed valid 302 questionnaires for analysis. The usable sample of 302 valid respondents was well above the recommended minimum sample size threshold of 124 respondents (approximately 33% of the target sample) representing 80.7% of the distributed questionnaires and thus was deemed sufficient for further PLS-SEM analysis consisting of a structural model with three predictors of one endogenous construct (Kock & Hadaya, 2018).

The calculated sample size was proportionally apportioned to the identified strata to guarantee proportional representation of the academic staff in the various academic ranks in the public universities (Sarfo *et al.,* 2022; Cochran, 1977). Then simple random sampling was done within each stratum to select study participants. In particular, the standard lottery process was applied to generate the final sample which consisted of the identification numbers of the respondents (Nuzha, 2023; Sarfo *et al.,* 2022). Simple random sampling allowed for equal selection probabilities among members within each stratum which reduced selection bias and increased impartiality to the sampling process (Lunsford *et al.,* 2017). Stratified sampling and simple random sampling thus bolstered the methodological rigor of the study and increased study results' reliability, representativeness, and generalisability.

Data sources, collection, and management

The research was based on data gathered using a structured questionnaire with self-administering features for academic staff in targeted institutions of higher learning. The questionnaire was formulated to quantify peer mentoring practices and research performance based on validated questions constructed out of previous empirical research (Carragher & McGaughey, 2016). The responses have been measured on a five-point Likert scale, which comprised of 1 = Strongly Disagree to 5 = Strongly Agree. However, to have content and face validity and relevance to the context, subject experts reviewed the instrument, and it was pilot tested prior to the actual survey to clear up ambiguous items, improve clarity, and test reliability and validity of the instrument (Teresi *et al.,* 2022; Flores & Estudillo, 2018). Hence force, the improvements were made to the questionnaire and subsequently used for data collection. The instruments measured the constructs of mentoring support (MGS), knowledge sharing (KNS), professional development (PRD) and research performance (RHP) which were underpinned by the study's conceptual framework and previous studies on mentoring and research performance as presented in Table 1.

Quantitative primary data was obtained from the academic staff in Tanzanian public universities through structured self-administered questionnaire. The use of primary data was seen as appropriate since the study was meant to

capture the perception, experience, and assessment of the respondents of the practices and research performance of peer mentoring in their institutional environment. The questionnaire questions were modified from earlier empirical studies to ensure a conceptual consistency and content validity of the questions (Carragher & McGaughey, 2016; Colvin & Ashman, 2010; Sarabipour *et al.,* 2022; Buberwa *et al.*, 2024).

Data was collected by direct administration of questionnaires to the selected public universities, sampled academic staff. Involvement in the study was voluntary and study participants were told about the purpose of the study, confidentiality, and ethical issues before filling out the questionnaire. All participants gave their informed consent and anonymity was used during the process of the study. The self-administered questionnaire approach was deemed appropriate as busy academic staff would not be hindered in their schedules and the approach would give them sufficient time to complete the instrument independently (Lunsford *et al.,* 2017; Nuis *et al.,* 2023).

Data management processes were established to ensure that the data collected was accurate, reliable, confidential and complete. All completed questionnaires were checked for completeness and consistency prior to coding and computer entry for analysis. The data cleaning process included pre-processing of data for missing data, duplicate data, inconsistent data and outlier data before performing statistical analysis. The final number of questionnaires used for analysis was 302, which was considered sufficient for the use of PLS-SEM analysis with three exogenous constructs and one endogenous construct (Kock & Hadaya, 2018). The cleaned data were securely stored and only used for academic purposes. The confidentiality of respondents was ensured by not sharing any personally identifiable data with anyone during data processing, analysis, interpretation, or reporting.

Study constructs and measurement

This study included the predictors (exogenous) and outcome (endogenous) variables that were in line with the conceptual framework and the assumptions of the Communities of Learning Theory, which posits that learning is a result of members of a community negotiating meaning and developing competence through sustained interaction, and learning (Wenger, 1998). The variables used were informed by the empirical literature on peer mentoring and academic productivity that mentoring practices are considered to be one of the main predictors of research ability and academic output (Bengesai *et al.,* 2023; Pololi *et al.,* 2023; Todoran, 2023). The predictor variables in the present study were peer mentoring practices and defined by three constructs, namely, mentoring support (MGS), knowledge sharing (KNS), and professional development (PRD). The three constructs were coded as MGS1-MGS3, KNS1-KNS3, and PRD1 to PRD3, respectively. Research performance (RHP) was the outcome variable in this research. The measurement of research performance was reflective and done through the use of indicators that reflected the research productivity, quality of research outputs, and impact research activities that were itemised from RHP1 to RHP5. Table 1 presents the operationalisation of the study's constructs.

Table 1: Operationalisation and measurement of variables

Construct	Type	Code	Items	Source
Mentoring support	Exogenous	MGS1	My colleagues provide useful guidance that improve my research activities.	Pololi *et al.* (2023); Todoran (2023)
		MGS2	Peer mentoring in my institution encourages me to participate actively in research activities.	Mremi *et al.* (2023); Todoran (2023)
		MGS3	I receive constructive feedback from colleagues during research work.	Pololi *et al.* (2023); Wang *et al* (2023)

Knowledge sharing	Exogenous	KNS1	Academic staff in my university frequently share research ideas	Bengesai *et al.* (2023); Wang *et al.* (2023)
		KNS2	In my university, colleagues willingly exchange research methods with one another.	Mremi *et al.* (2023); Wang *et al.* (2023)
		KNS3	Knowledge sharing with my university peers improves my ability to conduct research.	Le *et al.* (2024); Horta and Li (2023)
Professional development	Exogenous	PRD1	I understand that peer mentoring has improved my research skills.	Pololi *et al.* (2023); Todoran (2023)
		PRD2	Academic workshops conducted at my university have been useful for my professional development.	Thornton (2025); Le *et al.* (2024)
		PRD3	Mentoring relationships in my institution support my continuous development as scholar.	Horta and Li (2023); OECD (2023)
Research performance	Endogenous	RHP1	I regularly participate I research-related activities within my institution.	Horta and Li (2023); OECD (2023)
		RHP2	I have improved the quality of my research over time.	Double *et al.* (2020); OECD (2023)
		RHP3	I actively collaborate with my colleagues in conducting research work.	Le *et al.* (2024); Sarabipour *et al.* (2022)
		RHP4	My research activities contribute positively to academic development	OECD (2023); Teferra and Altbach (2022)
		RHP5	I am satisfied with my overall research performance	Double *et al.* (2020); Horta and Li (2023)

Analytical approach

The research used descriptive and inferential statistics to analyse and present research results. Data was summarised using descriptive statistics to illustrate the means, standard deviations, frequencies, and percentages of data, giving a general profile of the respondents and the study variables. PLS-SEM was used to perform the inferential analysis to determine the strength, the direction, and the statistical significance of the associations between the practices of peer mentoring and research performance. This method has proven to be of widespread popularity and relevance is the social sciences studies because of its applicability to prediction-oriented studies, complicated models, and non-normative data (Magno *et al.,* 2022; Sarstedt *et al.,* 2025).

The analysis was done in two PLS-SEM stages. First measured was the reflective measurement model which was checked through factor loadings, Cronbach's alpha, composite reliability, AVE (Average Variance Extracted), HTMT (Heterotrait-Monotrait Ratio), and the collinearity was measured using VIF (Variance Inflation Factor) diagnostic test. Furthermore, the hypothesised relationships were tested by assessing the path coefficients, coefficients of determination (R^2), effect sizes of the structural model, and the bootstrapping procedures tested the statistical significance of the estimated paths. All statistical tests were conducted with SmartPLS version 4 which guaranteed great strength and consistency in the estimation and interpretation of the PLS-SEM results.

Model specification

Model specification is the process of identifying the right independent variables to incorporate in the model to reflect the proposed relationships between constructs (Ekemezie *et al.,* 2023). The researcher defined and described the main parameters that influence the research structure and how they were theorized to be related to each other. As the aim was to test the association between independent and dependent constructs, there was the need to clearly define the theoretical model which was to be tested with the help of the PLS-SEM using the data acquired in the field. The relationship between peer mentoring practices and research performance was specified using the following linear structural equation model:

$Y = ß_0 + ß_1X_1 + ß_2X_2 + ß_3X_3 + ε.$

Where:

Y = Overall research performance (RHP)

$ß_0$ = Constant value

$ß_{1-3}$ = Unstandardised beta coefficients of peer mentoring practices (MGS, KNS, and PRD)

X_{1-3} = Predictor variables (input variables)

ε = Error

Therefore,

$RHP = ß_0 + ß_1MGS + ß_2KNS + ß_3PRD + ε$…… H1-3

This model was used to test hypotheses H1 to H3, examining the direct effects of peer mentoring practices on research performance among academic staff in Tanzanian public universities. The linear specification was employed because the theoretical model hypothesised direct additive effects of the three peer mentoring dimensions on research performance (Cohen *et al.,* 2003) in Tanzanian public universities.

FINDINGS AND DISCUSSION

Participants' demographic data

Table 2 gives the demographic profile of respondents who were used to conduct the study. Data analysis was done using 302 valid questionnaires, which was a sufficient response rate in PLS-SEM analysis. On sex, the respondents were predominately male (70.0%), with 30.0 percent being female. This distribution is representative of the gender balance that is typical of the academic staff in the Tanzanian public universities where the male scholars continue to hold the majority of the top academic and research positions. Regarding age, the largest proportion (40.2%) of respondents were aged 30-39 years, followed by those aged between 40-49 years (24.5%), and those of 20-29 years constituted 24.2%. Moreover, those aged above 50 years were 13.1%. This indicates that a significant percentage of the participants were in the early to middle career stages; this group is one that peer mentoring is especially applicable in terms of improving the productivity of the research and career growth (Thornton, 2025).

Regarding the level of education, most of the respondents had Master and PhD (42.6% and 35.8%, respectively). A smaller ratio had bachelor's degrees (15.1%) and postgraduate diplomas (6.5%). This distribution shows that most respondents had the required academic qualifications to be actively involved in research and academic activities. In terms of academic status, the highest number were those of assistant lecturers (35.5 percent), lecturers (25.4 percent)

and senior lecturers (16.5 percent). The sample of professors and associate professors represented a rather low proportion (5.3%). The domination of the junior and mid-level academic faculty highlights the significance of peer mentoring practices in fostering research change in less experienced academics (Arco-Tirado *et al.,* 2020).

Table 2: Respondents demographic characteristics

Demographic	Frequency	%	Demographic	Frequency	%
Sex			*Level of Education*		
Male	211	70.0	Bachelor's Degree	46	15.1
Female	91	30.0	Postgraduate Diploma	20	6.5
Total	**302**	**100.0**	Master's Degree	129	42.6
Age			PhD Degree	108	35.8
20-29 Years	73	24.2	**Total**	**302**	**100.0**
30-39 Years	121	40.2	*Academic ranks*		
40-49 Years	74	24.5	Professor	5	1.5
50-59 Years	27	8.8	Associate Professor	11	3.8
60+ Years	13	4.3	Senior Lecturer	50	16.5
Total	**302**	**100.0**	Lecturer	77	25.4
			Assistant Lecturer	107	35.5
			Tutorial Assistant	52	17.3
			Total	**302**	**100.0**

Source: Researcher (2023)

Measurement model assessment

The measurement model was for determining the reliability and validity of the constructs applied in the study. The factor loadings, variance inflation factor (VIF), Cronbach alpha, composite reliability and average variance extracted (AVE) were all checked, and the results are presented in Table 3. All the indicator loadings were above the recommended indicator reliability of 0.70 (ranging from 0.787 to 0.887) (Hair *et al.,* 2022). The VIF values ranged from 1.458 to 3.371, which are less than the recommended critical value of 5, therefore, depicting that there were no multicollinearity problems (Kock, 2023). The alpha values of Cronbach were between 0.742 and 0.830, and the composite reliability (rho_a and rho_c) between 0.802 and 0.934 with all the values above the minimum acceptable threshold of 0.70. This is confirmative of high internal consistency reliability of all constructs (Sarstedt *et al.,* 2025; Lim, 2024). Moreover, AVE values for mentoring support (0.718), knowledge sharing (0.724), professional development (0.698) and research performance (0.740) exceeded the recommended mark of 0.50, which proved sufficient convergent validity (Buberwa, 2026; Flores & Estudillo, 2018).

Table 3: Constructs reliability and validity test

Construct	Item	Factor loadings	VIF	α	rho_a	rho_c	AVE
MGS	MGS1	0.807	1.458	0.803	0.802	0.884	0.718
	MGS2	0.878	2.244				
	MGS3	0.855	2.040				
KNS	KNS1	0.835	1.759	0.809	0.816	0.887	0.724
	KNS2	0.844	1.718				

	KNS3	0.872	1.827				
PRD	PRD1	0.847	1.554	0.786	0.805	0.874	0.698
	PRD2	0.871	1.898				
	PRD3	0.787	1.632				
RHP	RHP1	0.854	2.745	0.912	0.912	0.934	0.740
	RHP2	0.887	3.371				
	RHP3	0.834	2.254				
	RHP4	0.848	2.644				
	RHP5	0.878	3.204				

Notes: Variance Inflation Factor (VIF), Cronbach's alpha (α), Composite Reliability (rho_a), Composite Reliability (rho_c), Average Variance Extracted (AVE)

Furthermore, the Fornell Larcker criterion, heterotrait-monotrait ratio (HTMT), and cross-loadings were used in evaluating the discriminant validity as indicated in Table 4. Square root of AVE for all constructs was higher than inter-construct correlations, which met Fornell-Larcker criterion, satisfying discriminant validity (Manley *et al.,* 2021). Also, the values of HTMT ranged from 0.226 to 0.827, and were lower than the conservative value of 0.85 which reflects sufficient discriminant validity (Cheung *et al.*, 2023; Henseler *et al.*, 2016; Henseler & Dijkstra, 2023). Cross-loadings also established the fact that each indicator loaded more on its intended construct as compared to other constructs, hence, corresponding with Hair *et al* (2019) recommendations. Taken together, these findings prove that the reflective structural measurement model was reliable and valid enough to warrant subsequent structural model analysis (Ekemezie *et al.,* 2023; Le *et al.,* 2024).

Table 4: Discriminant validity assessment

Construct	KNS	MGS	PRD	RHP
Fornell-Larcker criterion				
KNS	0.851			
MGS	0.494	0.847		
PRD	0.182	0.276	0.836	
RHP	0.700	0.710	0.352	0.860
Heterotrait-Monotrait ratio (HTMT)				
KNS				
MGS	0.604			
PRD	0.226	0.356		
RHP	0.810	0.827	0.408	
Cross-loadings				
KNS1	**0.835**	0.374	0.157	0.539
KNS2	**0.844**	0.404	0.137	0.591
KNS3	**0.872**	0.474	0.170	0.648
MGS1	0.499	**0.807**	0.111	0.631
MGS2	0.371	**0.878**	0.249	0.568
MGS3	0.375	**0.855**	0.349	0.599
PRD1	0.125	0.188	**0.847**	0.332
PRD2	0.206	0.266	**0.871**	0.303
PRD3	0.122	0.249	**0.787**	0.234
RHP1	0.617	0.604	0.255	**0.854**

RHP2	0.600	0.613	0.259	**0.887**
RHP3	0.542	0.640	0.356	**0.834**
RHP4	0.604	0.597	0.338	**0.848**
RHP5	0.645	0.601	0.306	**0.878**

Structural model assessment

Once the measurement model met the reliability and validity criteria, the next step in the PLS-SEM analysis was to evaluate the structural model. This stage includes the assessment of the predictive power of the model (R2) and the path coefficients that represent the magnitude and the direction of the relationships between the exogenous constructs (mentoring support, knowledge sharing and professional development) and the endogenous construct (research performance) (Hair *et al.,* 2019; Henseler *et al.,* 2016).

The structural model explains a meaningful amount of variance in research performance (RHP), as shown in Figure 2. The coefficient of determination (R2 = 0.685) shows that together knowledge sharing (KNS), mentoring support (MGS) and professional development (PRD) explain 68.5 % of the variation in research performance. It suggests that peer mentoring practices is a good predictor of research outcomes for academic staff (Cohen *et al.,* 2003; Hair *et al.,* 2024). However, greater proportion of variance (31.5%) is unexplained, indicating that other institutional, personal or environmental factors may influence performance within higher education settings.

The structural paths indicated that the three variables have a different effect on research performance. The greatest effect was from knowledge sharing (β = 0.453, t = 11.775), indicating that sharing of research ideas, methodologies and scholarly experiences with peers enhanced academic output. This is consistent with earlier research which shows that a shared learning environment that promotes sharing of academic knowledge can improve research capacity and innovation (Sarabipour *et al.,* 2022; Muriithi *et al.,* 2020).

Mentoring support (β=0.446, t=11.903) was also positively associated with research performance which means that mentoring relationships such as peer mentoring, mentorship, feedback and emotional support are likely to enhance research engagement and performance. This finding is in agreement with the findings by Mgaiwa and Kapinga (2021) who reported that mentoring relationships can promote confidence in research and career advancement for early career scholars. Finally, professional development (β = 0.146, t = 3.128) had positive and significant effect on research performance. The finding supports the contention that capacity building and skill development are important determinants of academic productivity and research quality (Kayombo, 2021).

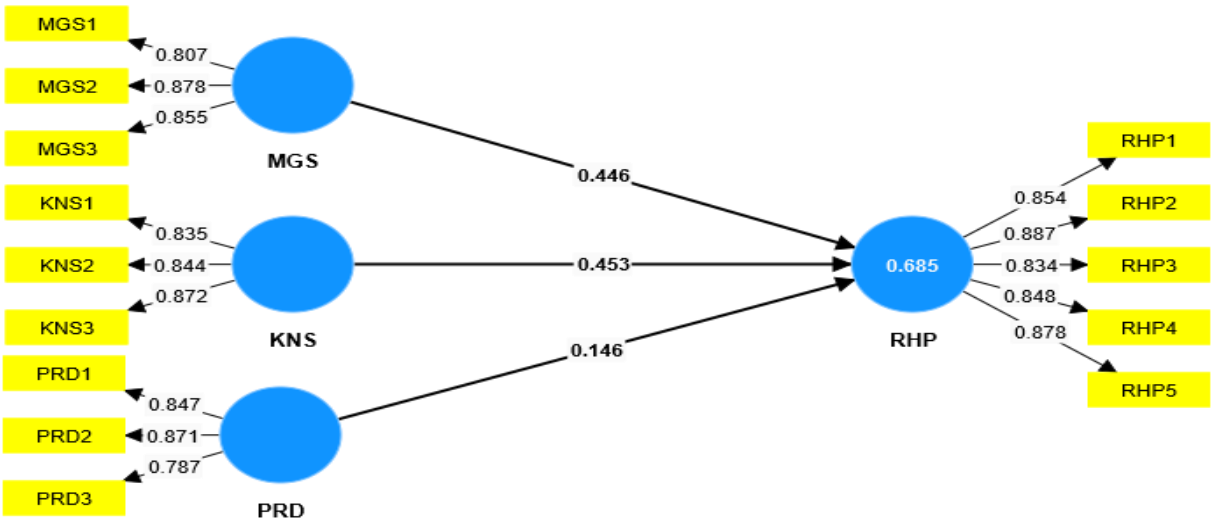

Figure 2. A path analysis of mentoring support, knowledge sharing, and professional development on research performance.

Hypotheses testing

The findings of the direct path analysis on hypothesis testing are shown in Table 5. The results indicate that knowledge sharing had the strongest positive effect on research performance (β = 0.453, *p* = 0.000), which supports H2. This means that peer exchange of research ideas, methods and experiences helps in improving research. The finding is consistent with the available literature that puts an emphasis on knowledge sharing as one of the main sources of innovation and academic output in learning institutions (Le *et al.,* 2024). Furthermore, mentoring support had the second strongest effect on research performance (β = 0.446, *p* = 0.000), hence, H1 was confirmed. They demonstrate that productive feedback, emotional support, and guidance through peer mentoring is valuable in improving academic research. The findings are supported by existing literature that focuses on the significance of mentoring support used in enhancing research confidence and productivity among academic staff (Colvin & Ashman, 2010). In addition, professional development had the least but positive impact on the research performance (β = 0.146, *p* < 0.002), which supported H3. This shows that engaging in peer mentoring practices that stimulate skill development, collaborative learning, and continuous professional development have a significant influence on academic research achievement. The result supports the perception that professional development is a very important process in which mentoring is converted into better research outcomes (Flores & Estudillo, 2018).

Table 5: Direct path analysis

Hypotheses	Paths	Path coefficients (β)	t-statistics	*p* values	Decision
H1	MGS->RHP	0.446	11.775	0.000	Supported
H2	KNS->RHP	0.453	11.903	0.000	Supported
H3	PRD->RHP	0.146	3.128	0.002	Supported

DISCUSSION

The results of the current study affirm the importance of peer mentoring practices to improve performance of research undertaken by academic staff in Tanzanian public universities. The three dimensions of peer mentoring support, sharing of knowledge, and developing professionally were all observed to have major positive impact on research

performance. Such findings are in line with other empirical studies (Sarabipour *et al.,* 2022, 2023; Balandya *et al.,* 2022; Mgaiwa and Kapinga, 2021; Nuis *et al.,* 2023), which mention the significance of structured mentoring and collaborative practices within academic communities.

Knowledge sharing was the most important indicator of research performance. This underscores the importance of the dissemination of research ideas, methods and experiences among colleagues as a means of improvement of the quality and effectiveness of academic outputs. This corroborates with previous work on knowledge flows in academic networks for innovation, problem solving and professional development (Sarabipour *et al.,* 2023; Mgaiwa and Kapinga, 2021). Sharing knowledge is particularly important in public universities in Tanzania where the institutional development of research can be limited and where peer network can be used as offered alternative sources of accessing the pertinent information and resources. This is in line with the CoP stance that competence is developed through participation in shared practices and continuous interaction within a community.

On the same note, mentoring support was found to have the second strongest significant impact on research performance. This means that academic staff can overcome research-related problems, be motivated, and productive with the help of timely guidance, feedback, and peer mentors (Mremi *et al.,* 2023; Pololi *et al.,* 2023). This observation is also consistent with Communities of Practice Theory (Wenger, 1998), which postulates that learning and skills development occur through social participation and shared practice within a community. In this regard, peer mentors help junior and mid-level academic personnel to learn research methods, institutional processes, and build confidence in their academic work.

Professional development was found to have the least but significant positive impact on performance of research. This implies that mentoring aspects that lead to skill enhancement, collaborative research, and on-going learning are the focus of enhancing research outputs. The finding aligns with the Communities of Practice Theory (Wenger, 1998), which maintains the importance of sustained engagement in shared practices to build expertise and enhance organizational performance. Consequently, mentoring enhanced by professional development, enables academic staff to access training opportunities, collaborate in research projects and experience advanced methods of research, which improve the effectiveness of research in general (Horta & Li, 2023; Thornton, 2025).

Though these results are encouraging, the literature suggests that the effective application of mentoring practice in higher education may also be challenged due to the absence of the institutional support, excessive teaching workload, inadequate funding of research, and the absence of formal mentoring policies (Kayombo, 2021; Mgaiwa & Kapinga, 2021). Irrespective of these obstacles, the present research study has indicated that peer mentoring is a manageable and practical tool to facilitate research performance particularly when mentoring undertakings are directed and aided by peers and division leaders.

CONCLUSION

This study investigated how peer mentoring practices affect research performance among academic personnel in Tanzanian universities using PLS-SEM analysis. The results show that all three dimensions of peer mentoring such as mentoring support, knowledge sharing, and professional development have a significant and positive impact on academic staff research performance. Among these, knowledge sharing demonstrated the strongest effect of all the mentoring practices studied.

The findings provide empirical evidence for the Communities of Practice Theory, which underscores the importance of learning through social participation, shared practices, and collaboration within a community. The findings highlight the importance of engagement in peer networks and mentoring relationships in knowledge sharing, skill development, and ultimately improving the research performance of academic staff in public universities. The study further

concludes that peer mentoring practices are found to enhance knowledge, skills and professional capacity that improve research productivity, research outputs quality and accessibility to research funds by academic staff in public universities.

POLICY IMPLICATIONS

The research results have significant policy implications with regards to governing higher education and developing academic in the context of Tanzania and other developing countries. The beneficial and meaningful impacts of mentoring support, knowledge sharing, and professional development on performance of research confirm the necessity of formalised and consistent policies of mentoring in the context of public universities. Despite national higher education policies in Tanzania having a focus on research, innovation and the development of human capital, the conclusions of this research indicate that the practice of mentoring has not been fully embraced in the country and its application is still inconsistent, which restricts the effect it is likely to have on research productivity.

On policy level, universities policy makers like the Ministry of Education, Science and Technology and the Tanzania Commission for Universities ought to incorporate peer mentoring models into national guideline of academic development. These frameworks ought to be specific on the objectives, role, accountability, and projected research findings. The formalisation of mentoring as a strategic policy tool would go in assisting to assure that mentoring practices are not reliant on personal goodwill, but they are incorporated into the university systems and performance management frameworks.

Moreover, the findings suggest that policy declarations do not allow improving performance in research. Universities must thus devise policies that would equate such participation of mentoring to research incentives, promotion guidelines, and workload distribution as well as give clear monitoring tools that would verify fairness, integrity, and sustainability of mentoring programmes. Mentoring policies, in this respect, must be accompanied by periodic reviews to understand the influence of the mentoring policies on the research outputs and the career advancement of the academics.

PRACTICAL IMPLICATIONS

Practically, the research provides practical recommendations to the university management, scholars and departmental heads who want to improve the performance of their research by using peer mentoring. To begin with, the powerful impact of knowledge sharing implies that mentoring projects must emphasise the significance of developing academic collaborative environments. Universities ought to organize new research seminars, peer-review forums, and interdisciplinary research groups which would promote exchange of ideas, feedback, and scholarly experiences. These networks especially come in handy in resource-starved situations, where network peer can offset research support that do not exist externally.

Additionally, mentoring support proved to be an important predictor of research performance, which implies that emotional encouragement, instructions, and detailed feedback are the key elements of successful mentoring. In practice, this suggests that universities need to identify and reward mentoring activities by giving less teaching, recognition, or professional recognition to a mentor. This is not only effective in maintaining the motivation of the mentors but also improves the quality and uniformity of the mentoring relationships.

Furthermore, the positive impact of professional development implies that the mentoring projects must focus on skills based and result oriented programs, including shared research projects, proposal-writing workshops, joint publishing, and research methodology clinics. The initiatives will make academic staff convert mentoring interactions into concrete research outputs.

Nonetheless, the conclusion indicates that systematic monitoring and feedback systems should be implemented in universities in order to determine the effectiveness of mentoring practices. The periodic feedback of mentors and mentees, the monitoring of research outputs associated to mentoring processes and the programmes modifications will assist institutions to optimise mentoring strategies and make the most out of mentoring activities.

LIMITATIONS AND FUTURE RESEARCH AREAS

Although this study makes profound contributions, it has several limitations. The research design was a cross-sectional survey, and this prevents the determination of the causal relationship between the practice of peer mentoring and performance of research. Additionally, the study was limited to PLS-SEM as the only means of data analysis. This narrows the robust and balanced view of the findings. Moreover, self-reports were used to evaluate research performance, and this is prone to social desirability or over-reporting results. Furthermore, the study was limited to public universities in Tanzania, and this could have narrowed down generalisability of the study to other private and countries with different systems of higher education.

Future research could apply longitudinal designs by monitoring the research performance variations with respect to mentoring interventions across time. Also, they could add objective performance measures e.g., grant awards, and number of publications to supplement the self-reported measures. Nonetheless, future studies could apply different methods of data analysis such as regression, and R. These will give a robust and balanced view of the findings.

Again, upcoming research could investigate the potential of teamwork, institutional assistance, and digital mentoring platforms as the means of increasing the effectiveness of peer mentoring in relation to research performance in universities. Last but not least, undertaken could be comparative research among private and public universities or other nations in Sub-Saharan Africa to ascertain the generalisability of results as far as the relationship between peer mentoring and research performance in universities is concerned.

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Authors' Contribution

Erick Buberwa: Conceptualisation, empirical review, data collection, analysis, and interpretation, manuscript writing and editing.

Elisifa Nnko: Theoretical review, data analysis, interpretation, manuscript writing and editing.

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