Development of research-intensive universities in Tanzania

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Abstract

Purpose – This article reports on a study that explored how the Tanzanian government can support the development of research-intensive universities in its higher education system.

Design/methodology/approach – Data were collected through document analysis and in-depth semi-structured interviews with participants obtained from national higher education departments, senior university leadership offices and academic staff in both public and private universities.

Findings – The study identified four essential systemic elements for developing research-intensive universities (RIUs): diversification of universities based on their core functions, allocation of financial resources according to research performance, relaxation of university governing systems and accrediting universities based on research outcomes.

Practical implications – The study identified essential systemic elements that could address the issue of developing RIUs in low- and middle-income countries (LMICs). These elements present a potential solution for developing a diverse higher education system capable of sustaining RIUs, offering opportunities to produce innovative knowledge, develop diverse skills and meet the needs of a range of students, employers and businesses.

Originality/value – This study adds to the body of knowledge on how LMICs can develop well-functioning RIUs. The study also contributes to the ongoing debates among higher education stakeholders, including governments, academics, students and the community, on the changing dynamics of higher education and its role in national and regional development.

Keywords Research universities, University governance, Performance-based funding, Higher education mission, University accreditation

Paper type Research paper

Introduction

Research-intensive universities (RIUs) have recently received considerable policy attention, particularly in low- and middle-income countries (LMICs) because they are seen as crucial contributors to the realisation of a knowledge-based economy in the 21st century, where knowledge and technology have become essential components of production processes (Jalote, 2021; Lee, 2021; Yang et al., 2021). Despite the significant policy focus on RIUs, many LMICs face challenges in their establishment and maintenance. Empirical evidence suggests that the challenge of effectively developing RIUs in LMICs stems from limited research to inform policy translation, development and implementation in specific country contexts (Cloete et al., 2018; Hladchenko and Benninghoff, 2020; Lee, 2021; Yang et al., 2021). Most LMICs often adopt approaches from high-income countries when developing RIUs, without considering their own socio-economic contexts (Cloete et al., 2018; Fussy, 2018; Mosha and Ngulube, 2023). For example, developing RIUs in Ukraine has become “an incomplete journey because of an uninformed, incomplete and inappropriate transfer of the idea of the research-intensive university” (Hladchenko et al., 2016, p. 122).

Only a limited number of studies have been conducted on how LMICs can facilitate the development of well-functioning RIUs. These studies were primarily conducted in Europe, America and Asia. Based on semi-structured interviews with deans and department heads from two Ukrainian universities, Hladchenko and Benninghoff (2020) found that the universities experienced means-end decoupling at both the state and organisational levels.
This led deans and department heads to experience institutional and cultural complexities, causing their practices and values to deviate from the global model of RIUs. The study did not explicitly state the practices and values necessary to align the practices of deans and department heads with the global RIU model. Lee (2021) conducted document analysis to evaluate the achievements of six Korean RIUs in relation to three key characteristics: research funding, human resources, and governance and academic freedom. Lee’s (2021) study reveals that despite the significant financial support that is primarily directed towards applied and developmental research, with less emphasis on pure and basic research, Korean RIUs still lack quality doctoral education and have not yet achieved collegial academic governance and academic freedom culture.

Similarly, Huang (2015) conducted document analysis to examine China’s efforts to develop RIUs and identify their distinguishing characteristics. The study shows that China has made significant progress in establishing its RIUs. National policies and strategies have been effective, and there has been growth in intensive funding from both the national government and local authorities for a few elite universities. However, the Chinese approach to developing RIUs is still receptive to Western influences. Cloete et al. (2018) conducted a comprehensive study from the perspective of Africa, presenting 15 years of data generation from eight flagship universities in eight African countries. The study found that out of the eight samples, only one South African university was classified as a RIU, while the remaining seven were described as aspiring. The study highlights a significant challenge for aspiring RIUs in Africa: the absence of strong internal funding policies. This results in research being dependent on and influenced by external donors (Cloete et al., 2018).

Findings from previous studies in LMICs (e.g. Cloete et al., 2018; Hladchenko and Benninghoff, 2020; Huang, 2015; Lee, 2021; Mkwizu, 2019; Zare et al., 2016) suggest that many RIUs in LMICs still face challenges that need to be addressed for their optimal functioning. To address these challenges, Yang et al. (2021) identified three strategies that suggest possible ways for RIUs in LMICs to balance global and national influences in their development. These strategies include actively embracing global impacts while seeking national support, partially utilising global forces while considering national factors and primarily relying on national forces with minimal influence from global forces. Adding to this limited body of knowledge on RIUs in LMICs, this study explored how the Tanzanian government can support the development of RIUs in its higher education system. As such, this study responded to the research question: How can the Tanzanian government support the development of RIUs? In doing so, this study contributes to the limited yet expanding body of knowledge on how LMICs can support the development of well-functioning RIUs. This study also contributes to ongoing debates among higher education stakeholders, including governments, academics, students and the industrial community, regarding the changing dynamics of higher education and its role in national and regional development.

**Literature review**

**Conceptual underpinning of research-intensive universities**

RIUs have evolved from mere accumulators and transmitters of knowledge to creators of innovative knowledge and unique competencies that are crucial for the advancement of cutting-edge technologies, products, and social practices (Altbach, 2013). According to Altbach (2013), RIUs are academic institutions that focus on producing, disseminating and translating research excellence across disciplines. RIUs have a research culture that permeates all their functions, including teaching and learning, community engagement and industrial partnerships. These institutions aim to create sophisticated systems that encourage entrepreneurial research and pave the way for cultivating students with an entrepreneurial mind-set. RIUs recognise the importance of establishing strong connections
with industry and the role of innovation clusters in attracting investment, creating jobs and shaping public policy (Altbach, 2013; Zare et al., 2016).

Analysts identified three complementary characteristics that constitute RIUs. These include the existence of highly talented and dedicated faculty and students, sufficient resources for promoting effective research and learning, and favourable and efficient governance (Altbach, 2013; Shin and Lee, 2015). A talented and dedicated team of academic personnel is essential for a successful RIU catering to both teaching and research. Academic staff in these institutions typically hold high-level academic credentials, usually at the doctoral level, from reputable universities. Although there are no available statistics, many aspiring RIUs in LMICs employ academic personnel who lack a PhD. As documented by Altbach (2013), Cloete et al. (2018) and Mkwizu (2019), this practice diminishes the meaning of RIUs and undermines their functions. Additionally, academic staff members in RIUs are frequently aware of the importance of teamwork and collaboration both within their local communities and on a global scale. In line with their importance in knowledge production, dissemination and translation, academic staff members in RIUs have relatively few teaching responsibilities (Altbach, 2013). Similarly, the quality and productivity of many RIUs receive a boost from the introduction of students into the research culture and the provision of research opportunities (Altbach, 2013; Mosha and Ngulube, 2023).

**Strategies for the development of research-intensive universities**

Governments that have successfully developed well-functioning RIUs recognise the need for state-of-the-art resources and invest substantial and consistent funding in their development. This is demonstrated by the allocation of Gross Domestic Product (GDP) towards research and development (R&D). The United States leads with 28% allocation, followed by China (19.6%), Japan (9.6%), Germany (5.7%), the Republic of Korea (4.4%) and the United Kingdom (2.5%). By contrast, most LMICs report an allocation to R&D of less than 1% of their GDP (UNESCO, 2015). The noted difference in GDP allocation between countries with advanced RIUs and those with aspiring RIUs suggests that a higher allocation of GDP towards R&D increases the likelihood of successfully developing well-functioning RIUs.

Another strategy is to develop RIUs episodically, by selecting a few universities from among the many in the country to concentrate resources on. In Korea, the government has been implementing the Brain Korea 21 (BK21) project in phases since 1999, with the first running from 1999 to 2005, the second from 2006 to 2012, the third from 2013 to 2019 and the fourth from 2020 to 2027 (Lee, 2021). Shin and Lee (2015) concluded that selective RIUs in Korea have a well-developed financial foundation, considering the concentration of resources. In terms of impact, the BK21 project has transformed the Korean higher education sector by enhancing the competitiveness of university research, bolstering graduate schools and incentivising top universities to transition towards RIUs (Lee, 2021; Shin and Lee, 2015).

The Chinese government launched two projects in 1995 (Project 211) and 1998 (Project 985), which were then replaced by the “Double First Class” project in 2016 (Yang et al., 2021). According to the Academic Ranking of World Universities, the number of mainland Chinese universities ranked within the top 500 worldwide rose from two in 2003 to 72 in 2020 (Yang et al., 2021). Moreover, the number of research papers originating from China increased by 4.9 times between 2003 and 2016 (Yang et al., 2021). The Indian government’s recent National Education Policy 2019 envisions the establishment of approximately 100 RIUs in the upcoming years, with more than twice the number expected in the next 2 decades (Jalote, 2021). The South African government introduced a draft policy in 2022 to remodel higher education institutions into three categories: higher education colleges, university colleges and universities. The main objective of this restructuring initiative is to enhance the growth of RIUs in the country (Department of Higher Education and Training [DHET], 2022).
Reducing government interference in university affairs is another strategy to enable the development of well-functioning RIUs. RIUs rely on government support to resist external intervention and are restricted by government regulations. In countries, where RIUs are thriving, the leaders and members of the research community governing RIUs maintain autonomy in determining core academic activities, university policies, recruitment and financial affairs. This allows for effective resource management to respond to changing market needs (Altbach, 2013; Jalote, 2021; Lee, 2021).

**Theoretical frame**

Metcalfe’s (2008) framework for theorising research policy in higher education is used to guide this study. The framework comprises of four elements: mission, support, management and translation. The mission pertains to the directions and prerequisites required for research development at the institutional, national and regional levels. This includes comprehending university research not solely as an academic pursuit, but also as an integral aspect of national innovative systems and industrial competitiveness. To facilitate the development of RIUs, countries’ higher education policies should direct universities in the creation of cutting-edge knowledge and development of innovative industries, often linked to information and communication technology (ICT) and university-industry relations initiatives (Altbach, 2013; Zare et al., 2016).

Support involves funding and developing the essential infrastructure necessary for advancing research, which serves both academic goals and national development. Research funding policies, as a support mechanism, also consider the impact of funding type on institutional behaviour and the motivation of individuals involved in research. To promote the development of RIUs, governments should diversify their funding mechanisms, encourage collaborative research among researchers and institutions, and address the need for adequate research infrastructure to enable high-quality research (Altbach, 2013; Cloete et al., 2018; Yang et al., 2021).

Management entails supervising research and resources, such as research evaluation, personnel recruitment and promotion, ethical considerations, resolving conflicts of interest, and addressing intellectual property issues. In this regard, governments should implement policies that clearly address conflicts of interest; protect and manage intellectual property rights; and define criteria for career advancement and research evaluation based on productivity, performance and excellence (Altbach, 2013; Shin and Lee, 2015).

Finally, translation involves transferring research output or knowledge from universities to communities and industries for practical application. It includes aspects such as patenting and licensing, spin-offs, consulting and incubation, employment, publishing and disclosure, and non-disclosure agreements. For well-functioning RIUs, translation policies as overseen by the governments and individual institutions, should play a crucial role in maximising the societal impact of research conducted within RIUs by facilitating the translation of research findings into practical applications and innovations (Altbach, 2013; Shin and Lee, 2015; Yang et al., 2021).

**Context of higher education in Tanzania**

The history of higher education in Tanzania is relatively recent. In 1961, the sector began with the establishment of a university affiliated to the University of London. It was not until the 1990s that the liberalisation of education and a shift in government policy towards private-sector partnerships led to a peak in university growth throughout the country. By 2023, Tanzania had experienced significant growth in its higher education sector, with 49 universities, 19 of which were public and 30 private, compared to just one in 1961 and two in 1990 (Tanzania Commission for Universities [TCU], 2023).
As of 2023, the academic workforce in Tanzania’s higher education was made up of 8,507 members who catered to around 240,523 students enrolled across various degree programmes (TCU, 2023). These statistics demonstrate that the overall number of academic personnel is insufficient compared to the number of enrolled students, exacerbating the disparity in the staff-student ratio. Unfortunately, TCU data do not include information regarding the qualifications of academic staff. However, recent statistics from a national university indicate that by the end of the 2020/2021 academic year, over half (52%) of its academic staff did not have a doctoral degree (University of Dar es Salaam, 2022, pp. 28–29). This emphasises the necessity for developing the necessary critical skills and expertise to support RIUs.

The primary distinguishing factor between public and private universities in Tanzania is their funding and management. Public universities receive funding from the government and are overseen by civil servants. However, private universities are financed and administered by their proprietors. Despite being self-managed institutions that operate autonomously with individual charters, both public and private universities in Tanzania are under national supervision by the Tanzania Commission for Universities (TCU), an agency of the Ministry of Education, Science and Technology (MoEST).

Section 10 (d) of the Universities Act, Cap. 346 of Laws of Tanzania stipulate the accreditation of universities and programmes as one of the TCU functions (TCU, 2019). Universities are accredited through a three-stage process: (1) Provisional License (PL), (2) Certificate of Accreditation (CoA) and (3) Reaccreditation. The institution at the PL stage is mandated to develop physical infrastructure, formulate administrative and academic policies, plan a curriculum, establish a governance structure and recruit academic personnel. An institution with a PL is not allowed to admit students. Once an institution is accredited, it is awarded a Certificate of Accreditation (COA) and reassessed for re-accreditation every five years. TCU conducts regular institutional quality audits, and the resulting audit report guides its decision on accreditation or re-accreditation. The General Guidelines and Standards for the Provision of University Education in Tanzania 2019 clearly stipulate the accreditation mandate in the following statement:

For the purpose of maintaining the quality of University education, every University intending to operate in Tanzania shall be accredited by the Commission and the University shall be re-accredit after every five years as stipulated in the Universities (General) Regulations, 2013. TCU (2019, p. 59)

The Tanzanian government allocates approximately 17–20% of the total national budget annually to the education sector. However, funds assigned by the government to education are insufficient to satisfy the requirements of the country’s education sector (Fussy, 2018). The Higher Education Students’ Loans Board (HELSB) receives 50% of the higher education budget to ease the provision of student loans, whereas universities typically receive only 20–30% of their annual budget request (Fussy, 2018). The Tanzanian government spends only about 0.3% of its GDP on R&D (UNESCO, 2015). Policy statements and speeches by political leaders have suggested that public universities search for alternative sources of funding and ways to generate additional income to support their core activities (United Republic of Tanzania [URT], 2023). This raises the question of how these universities are equipped to achieve financial and operational independence, as one of the defining features of RIUs.

Methodology
This study explored how the Tanzanian government can support the development of RIUs in its higher education system by gathering insights and perspectives from participants in the higher education sector, including academic staff members, senior university leaders and national higher education leaders. A qualitative research approach was employed to gain a
comprehensive understanding of the problem under study in its natural setting (Yin, 2011). In particular, this study employed a multiple case study design to engage participants across four universities with varying characteristics in terms of ownership, location and accreditation status.

Four universities were selected on the basis of three criteria: accreditation status, nature of ownership and geographical location. In Tanzania, universities undergo provisional registration and full accreditation. Full accreditation is granted to institutions that meet predetermined standards required to operate as fully fledged universities (TCU, 2019). All four participating universities achieved full accreditation during the data collection. Based on ownership and location criteria, two private and two public universities located in four different regions/provinces of Tanzania were included in this study to ensure diversity and broad data collection. In addition, two national higher education departments were selected as they play a supervisory role in the country’s higher education sector. All six research sites were anonymised to observe ethical issues.

Following the research protocol in this East African nation, the researcher obtained a research permit from the authorised institution in Tanzania. The permit was subsequently used to reach the research sites and the study participants. Prior to participation in the study, participants were assured of confidentiality and anonymity. This study did not use the personal names of the participants when quoting their statements in the reporting of the findings. To deidentify the research sites, codes were used (RS) and coded as RS1, RS2, RS3, RS4, RS5 and RS6.

This study recruited 24 participants from national higher education departments, senior university leadership offices and academic staff. Purposive sampling was used to select higher education and senior university leaders based on their influential leadership positions. These were the ones found in these positions during the data collection. As such, the sample of leaders consisted of two national higher education officers, namely the Director of Higher Education and the Head of University Accreditation and Quality Assurance, as well as 14 senior university leaders, including two Deputy Vice-Chancellors (DVCs), four Directors of Research, and eight Faculty/School Deans. Each university was represented by one Director of Research and two Faculty Deans: one from the natural sciences and the other from the social sciences. Stratified sampling was used to select two academic staff from each university based on their field of study and educational level. All eight academic staff members hold a doctoral degree and represent either the natural or social sciences.

Data were collected through face-to-face semi-structured interviews and document analysis. The interviews were conducted with all 24 participants and lasted from 20 to 40 min. The consent for audio-recording was obtained from the participants before recording the interviews. The interviews aimed to gather participants’ perspectives on how the Tanzanian government can support the development of RIUs in its higher education system. The following specific research questions were asked to obtain these perspectives:

(1) What criteria are used to allow universities to operate in Tanzania, e.g. accreditation procedures, core academic functions?

(2) How are resources for research made available to universities in Tanzania, e.g. funding modality?

(3) How does Tanzania prescribe the mission of its universities, e.g. teaching-focused, research-intensive, or a combination of both, academic career structure?

(4) How can Tanzanian universities become RIUs? And, what challenges do they face in becoming RIUs?

Document analyses were used to analyse national research policy documents and higher education policy documents. The document analysis was based on Metcalfe’s (2008)
framework for theorising research policy in higher education. Examples of policies related to research and higher education in Tanzania include the Research and Development Policy 2010 (URT, 2010), Tanzania Higher Education Policy (URT, 1999), General Guidelines and Standards for the Provision of University Education in Tanzania (TCU, 2019), and the Revised Harmonised Scheme of Service for Academic Staff in Public Universities and Constituent Colleges (URT, 2022). These policy documents were accessed through the relevant ministries’ websites and offices. The search for research policy documents was followed by a critical reading, evaluation and interpretation of research policy statements in relation to the purpose of the present study (Bowen, 2009). The analysis of documents was guided by the research questions.

Data were analysed using Braun and Clarke’s thematic analysis, which involves six major phases: familiarisation with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the report (Braun and Clarke, 2006, p. 87). Data from interviews were first transcribed. The transcribed data and field notes obtained through document analysis were then meticulously examined to identify initial codes and search for themes. Subsequently, all relevant themes were identified and named before producing the research report. Data analysis revealed four main themes: diversification of universities based on their core functions, allocation of financial resources according to research performance and outcomes, relaxation of university governing systems and research-based university accreditation.

Findings
The findings are presented in four sections, based on the identified four themes.

Diversification of universities based on their core functions
The findings show that Tanzania’s higher education sector follows a homogeneous university model, with all of its universities required to equally integrate teaching and research into their core university functions. This differs from the bifurcation university model, which classifies universities as either teaching (teaching universities) or research-based (RIUs). Data from the National Research and Development Policy 2010 (URT, 2010), the National Revised Harmonised Scheme of Service for Academic Staff in Public Universities and Constituent Colleges (URT, 2022) and the General Guidelines and Standards for the Provision of University Education in Tanzania 2019 (TCU, 2019) indicate that universities are legally obligated to combine teaching and research in their core functions. These policy documents have also outlined career advancement guidelines for academic staff in Tanzania’s universities, where one must have teaching and research experience to achieve promotion from one rank to another. One of the policy documents provide further evidence:

In the context of the liberalisation of the provision of services under current public service reforms, institutions will need to reappraise their core functions and align their resources accordingly. Higher education institutions need to focus more on teaching, research, consultancy and public service. URT (2010, p. 14)

The higher education officer added the following:

Since Tanzania established its first university, teaching, research and public service have been the core functions for all subsequently established universities. Each university has attempted to prioritise these core functions. The Department of Higher Education aims to guarantee that all universities carry out these core activities. Higher Education Officer, RS1

While the core functions of Tanzanian universities give equal weight to teaching and research, participants suggested that Tanzania should consider categorising its university
structure through implementing a bifurcation model, whereby universities can be assigned separate functions for teaching and research. The following statements provide detailed information.

The primary objectives of a university have traditionally been centred around teaching and research. However, the degree to which these objectives are emphasized in other countries may vary depending on various factors, such as the specific needs and demands of the institution, as well as external governing influences. Tanzania should adopt a similar structure without hesitation. This can result in universities adopting different approaches, such as prioritising teaching or prioritising research. *Director of Research, RS 3*

To remedy the low levels of skilled graduates and quality of research output, the sector needs to have two types of universities, research universities generally focus on research and teaching universities primarily focus on teaching . . . Even the teaching workload differs between these two types of universities, with academic staff at teaching universities often having a heavier teaching load. *DVC Research, RS 3*

Although Tanzanian universities are required to teach and conduct research, some with sufficient resources may prioritise research over teaching. They should be research (not teaching) driven. *Academic Staff, RS 4*

Strengthening research requires restructuring the higher education sector by establishing a specific research university. This is anticipated to generate a more supportive environment in which academics can carry out research and disseminate findings while adhering to worldwide trends and benchmarks. *Faculty Dean, RS 6*

The general implication from the participants suggests that the development of RIUs in Tanzania would require a higher education system which operates under a bifurcated university model.

*Allocation of financial resources according to research performance and outcomes*

The findings reveal that the Tanzanian government adopts a block funding method for financing its universities. The method provides financial support to the country’s universities by computing the student unit cost with the total number of students enrolled in a particular university. Thus, research does not receive a particular grant or funding from the government’s budget. The evidence supporting this is presented in the following statements.

The university does not receive dedicated government funding for research. Rather, research expenses are incorporated into the operational costs. The government does not dictate how to allocate these costs, and they are primarily used for administrative purposes. *DVC Research, RS 3*

Research is not mentioned anywhere in the government subsidies provided to private universities in Tanzania, in the form of tax relief on educational materials and loans for student and staff development remitted through TEA [Tanzania Education Authority and HESLB [Higher Education Students’ Loans Board]. *Faculty Dean, RS 5*

Research funding is encompassed within the category of expenses that includes electricity bills, water bills, teaching and learning materials, and staff training. Additionally, the government subsidies allocated to private universities in Tanzania through TEA and HESLB, in the form of tax exemptions on educational materials and loans for student and staff development and training, do not make any reference to research. The Tanzanian government allocates 0.3% of its GDP to R&D, but this funding is unreliable and competitively allocated to all research institutions in the country (*Fussy, 2018*). Participants proposed that financial resources for research funding should be based on institutional research performance and outcomes.
In the UK and Australia, research funding is based on institutional performance. This funding is granted for a period of 5–7 years after assessments of research contributions and impact. Universities need to enhance the quality and quantity of their research to obtain a larger share of this funding. Academic Staff, RS 3

It is essential for the government to distribute research funding equally between public and private universities based on their research performance. The knowledge generated from research is beneficial to all staff, students and citizens of Tanzania, regardless of their institutional affiliations. DVC Academic, RS5

The optimal approach for facilitating research in higher education institutions is to establish a framework for awarding competitive research grants based on research performance. I also suggest ensuring that most PhD students receive support from these grants through their respective universities. Higher Education Officer, RS1

Research performance-based funding is advocated for adoption in Tanzania with the aim of enhancing research quality and performance in universities, particularly among aspiring RIUs. Some participants referred to research funding frameworks similar to the Research Excellence Framework (REF) and Excellence in Research for Australia (ERA) in the UK and Australia, respectively.

Research-based university accreditation

The findings show that research should have a pivotal impact on university accreditation to achieve the development of RIUs in Tanzania. The higher education officer explained that research is one of the components considered when they evaluate an institution for a Certificate of Accreditation (CoA) or reaccreditation. To meet the criterion, an institution should possess at least 30% of the total number of publications.

Research is a crucial component that we consider when evaluating an institution for full accreditation or reaccreditation. In our evaluation, we look at the number of publications the university has produced through its staff... we have set minimum requirements of publications by staff as ideal situation [75–100%], good situation [50–74%], and acceptable situation [30–49%]. At least 30% is needed for a university to pass a research component requirement. Higher Education Officer, RS2

However, participants emphasised the need for the research aspect to be reinforced and closely monitored during university accreditation for Tanzania to achieve the development of RIUs.

Research should be given more weight in the university accreditation process than [it is] now, because research produces new knowledge, new skills, new attitudes, and research is the only way through which universities, as well as the nation, can benefit from innovation, which in turn can lead to social and technological development. Higher Education Officer, RS1

A systematic accreditation process with clear metrics and transparent assessment methods can enhance the credibility of TCU [Tanzania Commission for Universities] and the accredited universities. It is important to give more emphasis to the research and publication performance of universities. Their average annual research productivity should be a factor in determining their accreditation status. Academic Staff, RS 5

Accreditation and even academic career advancement should be based on research excellence. A country without research is a dead country. Academic Staff, RS 6

The smaller number of universities that exist in Tanzania was mentioned as one of the reasons for the accreditation body’s leniency when evaluating the research component for university accreditation, hence letting some institutions get off the hook despite having some shortcomings in research:
I have never witnessed any university being denied a registration or accreditation based on research. Given a smaller number of universities currently exist in the country, universities are often given a grace period to improve their research capacities. Director of Research, RS3

When assessing a university for accreditation and reaccreditation, we look at the basic facilities that can support academic activities, such as academic and administrative staff, programmes, classrooms, laboratories, offices, dormitories and the financial aspect. To tell you the truth, we are often lenient on the research and consultancy dimensions, although they exist in our guidelines. Higher Education Officer, RS2

National evaluation of research during university accreditation or reaccreditation is not as stringent as other criteria, despite its mention in the policy. It was considered that strict enforcement of research compliance would deny accreditation to some universities, at a time when Tanzania needs these institutions to operate.

Relaxation of university governing systems
At present, Tanzanian universities have been granted autonomy in the development and implementation of their curricula, with the aim of providing students with more tailored academic programmes. The General Guidelines and Standards for the Provision of University Education in Tanzania 2019 also substantiate this:

Among the tenets of academic freedom and institutional autonomy in universities are those related to academic staff being accorded significant responsibility (autonomy) for, and control of the curriculum and pedagogy. This has historically resulted in continuous innovation among universities worldwide and the concomitant effect that University curricula and pedagogy define the competitive edge of knowledge of a particular university and its production and transmission in the institution. TCU (2019, p. 18)

While the participants fully appreciate the autonomy granted in university curricular development and implementation, they desire to have more autonomy in terms of recruiting academic staff, selecting senior university leaders and managing financial matters within the allocated institutional budget.

Leaders and academics within research universities have the authority to dictate academic activities, institutional policy, recruitment, financial affairs and direction. This strategy enables the efficient allocation of resources to meet the evolving demands of the market. Academic Staff, RS6

Autonomy in Tanzanian universities aspiring to become RIUs requires strengthening, given that there is already a certain degree of autonomy. The governing boards of these universities should possess full decision-making powers, including the capacity to appoint their members and government-appointed representation on the boards should be limited. Director of Research, RS4

Historically, the Tanzanian government allowed universities to conduct employment interviews when recruiting their academic workforce. Presently, government officers attend these interviews and determine their format. Such a practice does not happen anywhere in the world where research universities thrive. Academic Staff, RS3

Granting complete autonomy in governing practices, performing core academic functions, recruiting staff and managing finances was considered essential by the participants for the development of RIUs in Tanzania.

Discussion
This study explored how the Tanzanian government can support the development of RIUs in its higher education system. Four essential systemic elements necessary for the development of RIUs in Tanzania have been identified. These elements include differentiating university
mission based on their core functions, allocating financial resources according to university research performance and outcomes, relaxing university governing systems and implementing research-based university accreditation. The four elements are discussed as follows.

Higher education mission differentiation
The participants proposed the implementation of a bifurcation model to categorise the university structure in Tanzania that would establish a more supportive environment for RIUs. This phenomenon is similar to the Metcalfe’s (2008) framework for theorising research policy in higher education which supports the introduction of mission policies that clearly define the overarching objectives and functions of the university in relation to the direction of national innovative systems and industrial competitiveness. Notable examples of mission differentiation can be drawn from the California Master Plan for Higher Education and the Carnegie Classification for Higher Education Institutions in the United States of America, the Brain Korea 21 (BK21) project in Korea and the Double First Class project in China. These countries treat RIUs and teaching universities differently in regards to funding, human resource management, student admission and teaching responsibilities (Altbach, 2013; Lee, 2021; Huang, 2015; Yang et al., 2021; Zare et al., 2016).

Mission differentiation, as a policy initiative for a diverse higher education sector, has been subject to criticism. Some analysts argue that it promotes elitism and hinders fair competition among universities. This is because selected RIUs may continue to remain at the higher echelons of academia, as they receive special attention and management from the government and the wider community (Hladchenko et al., 2016; Shin and Lee, 2015). Several governments have recognised these limitations. In response to the competitive global environment, countries such as China, Germany and South Korea have restructured their higher education policies and practices. In this context, the number of universities on their lists of RIUs has increased, and ensure that the selection process is merit-based. These universities undergo rigorous evaluation every four to five years (Jalote, 2021; Shin and Lee, 2015; Yang et al., 2021). The results of this assessment form the basis for the demotion of underperforming institutions or the promotion of exemplary and outstanding institutions (Jalote, 2021; Shin and Lee, 2015; Yang et al., 2021).

Research performance-based funding
The Tanzanian government primarily uses a block funding method or direct institutional allocations to distribute funds among the country’s universities, without any designated allotment for research. The situation is not helped by the national research policy that seeks research funds to be organised at the national level: “Criteria and guidelines for funding HEIs and apportioning research or project funds need also to be institutionalised and coordinated at [the] national level” (URT, 2010, p. 15). Participants in this study proposed that research funding should be tied to the research performance and outcomes of the individual institutions. This finding is consistent with Metcalfe’s (2008) framework, which suggests that research funding policies in higher education should consider the impact of funding types on institutional behaviour and individual motivation in research.

Critics of block finding or direct institutional allocation argue that this funding model promotes indolence among academics, researchers and institutions (Jongbloed and Lepori, 2015; Shin and Lee, 2015). With the block funding approach, universities are rewarded for their size in terms of student numbers rather than their research activities or quality of performance. In this sense, universities receive the same level of funding regardless of the differences in their research performance as required by the performance-based funding policy. The governments of New Zealand, Hong Kong, South Africa, Australia and the UK have diversified their approaches to university funding to address the constraints imposed by block funding. They
have been implementing a blended funding model that recognises universities for their core funding and their achievements in research, i.e. research performance-based funding (Jalote, 2021; Shin and Lee, 2015; Yang et al., 2021; REF, 2021). For example, the United Kingdom introduced the Research Assessment Exercise (RAE) in 1986 and the Research Excellence Framework (REF) in 2014. Australia introduced the Excellence in Research for Australia (ERA) in 1988, New Zealand the Performance Based Research Funding (PBRF) in 2002, South Africa the Research Output Policy in 2003 and Hong Kong the Hong Kong University Grants Committee (HKUGC) in 1993. Research performance funding in these countries requires universities to submit their research outputs to a peer review panel for assessment at least once every four years. The assessment results form the basis for the allocation of research funding to universities by higher education funding councils.

Although critics have argued that research evaluation schemes promote elitism and inequality among academics and universities (Murphy and Sage, 2014), the logic behind the research performance-based funding is that academics, researchers and universities compete with one another to secure funding and are motivated to improve their research and performance (Shin and Lee, 2015). Despite the critiques of these assessment systems, connecting funding to university research performance has bolstered research and drawn additional resources to maintain RIUs to the extent of modelling other countries across the world – see success stories, for example, in the UK (REF, 2021), South Korea (Lee, 2021), China (Yang et al., 2021) and South Africa (Cloete et al., 2018). Therefore, relying solely on the block-funding mechanism to finance Tanzanian universities could hinder the country’s development and progress towards RIUs.

Research-based university accreditation

Participants highlighted the need to give greater importance to the research component in the university accreditation process. This emphasis on research is necessary because university assessments during accreditation or re-accreditation in Tanzania tend to prioritise teaching over research. Consequently, the objective policy standard aimed at enhancing research in Tanzania is compromised in an effort to expand the number of universities. This finding contradicts Metcalfe’s (2008) framework, which asserts that the implementation of research evaluation policies in higher education is essential for assessing and evaluating the quality, impact, and outcomes of research activities. These research evaluation policies ensure compliance with ethical standards, promote transparency and foster a culture of research excellence (Metcalfe, 2008).

The leniency of implementing research evaluation policies also contradicts with Tanzania’s main goal of developing RIUs and increasing scientific knowledge, as well as fostering a competent workforce that is embedded with creativity and innovation to effectively tackle development challenges and compete regionally and globally, as outlined in the National Development Vision 2025 (URT, 2000, p. 4). Therefore, it is crucial for Tanzania to establish appropriate mechanisms to ensure the construction of sufficient infrastructure and structures, thereby improving compliance with current university accreditation policies. The research-based university accreditation policy could be implemented without difficulty if Tanzania decides to adopt the bifurcation university model. RIUs can be recognised during the accreditation process and the other institutions can be designated as teaching universities. Gradually, other universities can mature into RIUs by developing their research capacities and raising their profiles.

Relaxing university governing systems

The Tanzanian government’s direct control over university affairs, such as recruitment of academic staff and students, appointment of senior university leaders and deciding on
organisational structure, has led participants to call for a more relaxed governing system. The relaxed governing system would enable universities to conduct staff employment, appoint senior university leaders (including vice-chancellors) and manage finances. This finding is consistent with previous research which found that RIUs require greater autonomy (Altbach, 2013; Jalote, 2021; Zare et al., 2016). As such, the implementation of a deregulation policy would enable universities to successfully govern themselves and confront the intricate challenges of globalisation, technological advancements, changing student and public expectations, global rankings and prestige, and the need for improved financial resources.

In Asia, some governments have converted their leading RIUs from national institutions into autonomous state-owned corporations to enhance their capacity to manage their own affairs (Lee, 2021; Shin and Lee, 2015; Yang et al., 2021; Zare et al., 2016). For instance, in 2010, Seoul National University in South Korea underwent a transformation into a corporate entity (Lee, 2021). Similarly, Taiwan’s flagship university underwent the same transformation in 2008, followed by Singapore’s in 2006, Japan’s in 2004, and China’s in 1998 (Yang et al., 2021; Zare et al., 2016). At the time of writing this paper, there were no Tanzanian public universities operating as independent public corporations, which is a crucial factor for developing well-functioning RIUs. The independent corporate status allows universities to plan and execute their own strategic plans while becoming more autonomous in budgeting. Additionally, independent corporate universities become more eligible for loans due to the guaranteed collateral, and they can manage their staff’s employment and payment based on the demand for specific skills and specialisations (Hladchenko et al., 2016; Shin and Lee, 2015). Empirical studies conducted in South Korea, China, Singapore, Taiwan and Japan have shown that independent corporate universities are more efficient and active in research, making effective contributions to the economic transformations of their respective countries (Lee, 2021; Shin and Lee, 2015; Yang et al., 2021).

Governments may be hesitant to implement deregulation policies due to concerns about potential abuse and misuse, particularly within universities. Recently, Ngalame (2023) reported that higher education authorities in Cameroon have suspended PhD admissions in all 11 state universities for the 2023–2024 academic year until new conditions stipulated by the government have been fulfilled. These conditions involve presenting a detailed report on the financial and academic capacity of each department or school within the institutions that provide PhD training. Details are also required regarding the expenditure of funds provided by the state for PhD defence panels during the period spanning from 2020–21 to 2022–23. This incident explains why a state may be cautious about increasing autonomy, as it presents the possibility of universities becoming less accountable for public funds. Even then, suspending PhD admissions to all 11 state universities at once raises doubts about whether these institutions will ever truly be autonomous.

Conclusion

LMICs aspiring to develop RIUs often face challenges that need to be addressed for optimal functioning. Using data obtained from academic staff members and senior leaders in national higher education and universities across six research sites, this study has established how the Tanzanian government can support the development of RIUs within its higher education system. Four essential systemic elements necessary for the development of RIUs have been identified, namely differentiating university mission based on their core functions, allocating financial resources according to university research performance and outcomes, relaxing university governing systems and implementing research-based university accreditation. These elements offer a potential policy and practical solution for developing a diverse higher education system capable of sustaining RIUs. In addition, these four elements provide opportunities to produce innovative knowledge and develop diverse skills that help bridge
the gap between academic research and real-world applications, meeting the needs of a range of students, employers and businesses (Metcalfe, 2008).

For theoretical implication, this study contributes to the limited yet expanding body of knowledge on how LMICs can support the development of well-functioning RIUs. This study also contributes to ongoing debates among higher education stakeholders, including governments, academics, students and the community, regarding the changing dynamics of higher education and its role in national and regional development. For practical implication, the Tanzanian government and other governments in LMICs with similar higher education backgrounds and aspirations to develop well-functioning RIUs can implement the four systemic elements identified in this study.

Further research is necessary to explore the prevalence of the documented four elements in different contexts of LMIC’s higher education, by scaling them in order of importance and conducting a comparative analysis. Additionally, the discussion of the findings in this study, along with previous studies, supports the use of Metcalfe’s (2008) framework for understanding research policy in higher education. In this respect, this study suggests that researchers should continue to use Metcalfe’s (2008) framework when studying the formulation and implementation of research policy in higher education.

References


Jalote, P. (2021), Building Research Universities in India, Sage, New Delhi.


United Republic of Tanzania (2022), The Revised Harmonised Scheme of Service for Academic Staff in Public Universities and Constituent Colleges, Ministry of State, President’s Office Public Services and Good Governance, Dodoma.

United Republic of Tanzania (2023), The Treasury Registrar’s Circular No. 1/2023 on Enhancing the Management and Operational Systems of Commercial and Strategic Public Institutions and Organisations, The Treasury Registrar, Dodoma.


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