

The Effect of the Knowledge-based Economy on Higher Education Practices in Tanzania

George Kahangwa

Department of Educational Foundations, Management and Lifelong Learning
University of Dar es Salaam, Tanzania

E-mail: kahangwagl@udsm.ac.tz; kahangwakatunzi@yahoo.com

Abstract

Since the 1990s, multilateral organisations have been claiming that successful countries in the world are knowledge-based economies (KBE). Low-income countries were therefore challenged to reform their higher education policies so as to meet KBE requirements. It was asserted that through building KBE, low-income countries could leapfrog industrial development, thereby becoming globally competitive. Meanwhile, critics argue that KBE does not enable countries to prosper. Based on such arguments, a study was undertaken to examine how the urge to construct a KBE has influenced higher education in Tanzania. The findings suggest that efforts to construct a KBE through higher education in the country have been responsible for the erection of university structures which correspond to neo-liberalism. This paper argues that Tanzania's case gives evidence that the use of higher education to construct a KBE is a way through which higher education is tuned to aid the process of capitalist globalisation.

Key words: Higher education, Knowledge-Based Economy, Discourse, Neo-liberalism, Tanzania

Introduction

In the 1990s multilateral organisations and international institutions such as the World Bank (WB) put forward a claim that successful economies in the world are knowledge-based (World Bank, 2002; ADB, 2007) and, therefore, other countries should do all it takes to become knowledge-based economies as well. The supporters of such ideas argue that in order to become a knowledge-based economy (KBE), a country needs, amongst other things, an efficient innovation system and a highly skilled workforce (Utz, 2006). Since the two can be developed through higher education, universities have to play a crucial role in attaining a KBE. Such claims are drawn from Bell's (1973) prediction that, in post-industrial societies, universities would be the key organisations in any economic endeavour. In recent years therefore, low-income countries have been challenged, particularly by the WB, to reform their higher education policies so that they can construct a KBE (Olssen and Peters, 2005). Based on such a scenario, a study was conducted to examine how constructing a KBE¹ has affected higher education practices in a low-income country, namely Tanzania.

Before proceeding with the details of the study, it is important to review, albeit briefly, what constitutes a KBE. KBE has been defined differently in the literature and in documents published by different international organisations. For instance, the WB defines it as an economy which is built on the creation, dissemination and acquisition of knowledge to sustain economic growth and

competitiveness (World Bank, 2006), whereas the Organisation for Economic Co-operation and Development (OECD) defines it as an economy which is 'directly based on the production, distribution and use of knowledge and information' (OECD, 1996). Both definitions agree that KBE has to do with the production, distribution and use of knowledge as a main resource for the economy. In other words, KBE is about producing and selling as well as buying and using knowledge.

Apart from the definitions, the international organisations have also put forward different models of KBE, which include the ones given by the OECD, the WB, Asia-Pacific Economic Development, the Australian Bureau of Statistics and the United Nations Economic Commission for Europe (Daugeline, 2004). Though not the main concern of this paper, it is noteworthy that these models also have similarities and differences in their structure and the concepts used.

According to the WB's model, KBE has four pillars (WBI, n.d.; Leung, 2004). These are:

- An Economic and Institutional Regime capable of providing incentives for the efficient generation of new knowledge and the use of the existing one (World Bank, 2008).
- A dynamic Information and Communications Technology (ICT) infrastructure that can facilitate the effective communication, dissemination and processing of information (World Bank, 2008).
- An Education System that produces highly skilled human resources capable of creating, sharing and utilising knowledge (World Bank, 2008).
- An efficient Innovation System composed of firms, research centres, universities, think tanks, consultants and other organisations that can tap into the growing stock of knowledge, assimilate and adapt it to local needs, and create new technology (WBI, n.d.).

Although slightly different, the models produced by other organisations have similar elements to those found in the WB's model. The most common elements are ICT, innovation and education.

The study

The literature on the subject of KBE construction shows that there are contesting ideas about what KBE is for and how to build it. While it is claimed that KBE has a leapfrog effect, which can make low-income countries skip the stage of industrial economy and rapidly become economically competitive (ADB, 2007), some critics argue that KBE has the opaque interest in extending capitalism and therefore is not for low-income countries to develop (Robertson, 2008, 2009). Also, while the United States supports a neo-liberal approach to developing it (Tero, 2002), Finland, which is taken as one of the good examples of countries which have become KBEs, has almost always followed a neo-corporatist approach (Porter et al, 2000). Moreover, while according to the WB the market and individualism are the means by which to develop KBE, according to the OECD, the means are social and institutionally embedded liberalism (Robertson, 2005).

In previous studies on KBE and education, KBE has been found to have wide-ranging effects on higher education research and teaching. Amongst the effects is that research policies influenced by KBE have constructed research mainly as a techno-scientific undertaking in Australia (Kenway, et al, 2004). This kind of research is mainly for the purpose of solving the problems of industries, thus undermining intellectual autonomy and neglecting the undertaking of basic or curiosity research. KBE has also led to university research no longer being seen as a public good but rather as a tradable commodity (*ibid*). It is worth noting here that Australia has its own approach to KBE (the ABS model). It is therefore of interest to find out if this effect of KBE realised in Australia is

specifically attributable to the model adopted in that country or even to other models. The literature also suggests that education policies which have a KBE orientation have led to an emphasis on entrepreneurship in research funding and applications across OECD and European Union (EU) member states (Kenway, et al, 2004). This is likely to be a direct result of the existing OECD model of KBE.

In this study the researcher aims to provide further knowledge on the effects of KBE on higher education through examining how the discourses on KBE have materialised and how they have been enacted and inculcated (Fairclough, 2005) in Tanzania's universities. This is explored in relation to the model adopted by the country and the results of meeting KBE requirements. The study therefore aims to answer the question: how has the construction of KBE affected higher education practices in Tanzania?

Study methodology

The study adopted Robertson's (2009) Critical Cultural Political Economy of Education (CCPEE) to examine how and explain why higher education is being used to develop KBE. CCPEE sees education as the main area for the production and reproduction of cultural and social practices, which are shaped by political and economic powers (*ibid*). Since the study sees KBE as a discourse, the main approach used to analyse the collected data was Critical Discourse Analysis (CDA). This approach was chosen based on its assumption that discourses as texts have linguistic, rhetorical, semiotic, and inter-discursive features that are a reflection of social practices and power relations in the society (Fairclough, 2005). This assumption suits the objectives of the present study. In addition, the examination of KBE as a discourse took into consideration the fact that it is a nodal discourse (Jessop, 2004; Fairclough, 2005); that is, it is a hub of several other discourses, which are in several categories. The categories are: technology, e.g. smart machines; economy, e.g. e-commerce; capital, e.g. intellectual property; labour, e.g. tacit knowledge; science, e.g. triple helix; education, e.g. lifelong learning; law, e.g. bio-piracy; state, e.g. e-government; and politics, e.g. cyber politics. These categories helped follow up each discourse relating to KBE, as used in the policy documents that were reviewed.

A multi-site case study design was adopted, whereby three institutions in Tanzania were involved, namely the Ministry of Education and Vocational Training headquarters, and two higher education institutions (universities). The study involved collecting and reviewing Tanzania's higher education policies and related documents, as well as institutional policies or guidelines, which were then subjected to CDA. In addition, interviews and discussions were conducted with policymakers/ministry officials, university administrative officials and academics, to explore what they have experienced of the effects of KBE on higher education in the country.

To examine the effects of KBE on the country's higher education practices, the enactment, inculcation and materialisation of KBE discourses were analysed (Fairclough, 2005). Thus the effects were expected to relate to academics' ways of acting and interacting and the identities they have acquired, as well as objectification of the discourses at the two universities (the University of Dar es Salaam – UDSM and Sokoine University of Agriculture - SUA). Moreover, the interview accounts and discussions were analysed thematically to categorise the effects pointed out by the participants.

The theoretical guidance of this examination was that people's practices, what they become, what they do, and how they make representation of social reality, can be created by discourses. Thus, as

argued by Jessop (2008), discourses are causally effective. Also when put into action, discourses have an impact, or result in changes, which might be positive and/or negative. Moreover, one of the tenets of CDA regarding discourses is that 'the word or language we use helps to shape and/or constrain our identities, relationships, and systems of knowledge and beliefs' (McGregor, 2003: 3). Furthermore, as observed by Fairclough (2005), changes in societies and/or organisations are often initiated by new discourses being disseminated across social scales and structures, and are then operationalised by being enacted in new ways of interacting or acting, including genres and procedures, inculcated in new ways of being, including styles, and caused to materialise or be objectified in new ways of structuring space. Thus it was assumed in this study that KBE as a discourse has such attributes and is therefore reflected in the procedures followed in universities in the actions of academics and new structures on the universities' campuses.

Study findings

General effects of KBE

The study found out that the requirements for KBE constructions are not only reflected in Tanzania's policy statements but have also affected university practices in numerous ways. For instance, the KBE requirement of having highly skilled human resources has contributed to the development of policies urging for increased enrolment in universities. Unfortunately, according to the interviewees, increased enrolment in Tanzania's universities has led to a decline in the quality of teaching and learning in higher education. The requirement has also been responsible for policies allowing the establishment of private universities, which are again associated with the KBE requirement of diversifying research funding sources. The requirements and policies have resulted in a tremendous increase in the number of universities in the country in recent years. While in 1961 Tanzania had only one university and two in 1991, by 2012 the number had increased to forty universities and university colleges (12 public and 28 privately owned).

Furthermore, the KBE requirement of diversifying research funding sources has effectively resulted in academics having to work for institutions other than their employers, as they seek alternative research funding. Another effect has been research deviating from a focus on national problems to issues that are of interest to the foreign and private financiers of research. This stems from a higher education financing trend whereby the government in Tanzania has reduced its financial support for universities under the guise of allowing them to diversify their funding sources. This is exemplified, for instance, in a statement from the UDSM 2008 Intellectual Property Policy, which reads:

Among the areas which are adversely affected by the government's inadequate funding is research. As a result UDSM's direct contribution to solving national problems through research is abysmal or at best low (UDSM 2008: 1)

Enactment of KBE

KBE discourse enactment in terms of new ways of acting that were found in the documents include commercialising higher education and introducing marketing practices required by the policies of the universities involved in this study. Several policy statements in the documents show that following the introduction of KBE elements, one action that has been resorted to in the universities is the commercialisation of research. This is seen, for instance, in a statement from Sokoine University of Agriculture (SUA)'s 2005 Institutional Intellectual Property Rights Policy (2005, p.1). The statement puts together the discourses which represent what universities do (research work and knowledge

development) and the discourses on KBE; innovation, R&D, academic-industry relationship, intellectual property and commercialisation. The statement is therefore a hybrid of academic and business-oriented discourses, thus affecting the practices of the academics by giving them a business-oriented way of acting. The statement suggests that for the sake of sustaining innovation in research institutions there is a need for higher education institutions (HEIs) and industries to come to an agreement regarding the benefits emanating from the commercialisation of research. It implies that the university (to which the document belongs) is now guided by the policy to commercialise research.

Another statement which reveals that commercialisation is one of the new ways of acting in Tanzania's universities is found in the 2008 UDSM Intellectual Property Policy, p.vii. This is also a statement that brings together various discourses: university work discourses (research), economic discourses and KBE ones (such as the use of the phrase 'Intellectual Property' in the name of the document). It claims that research should be commercialised because it is a source of revenue for universities. The statement implies that through the commercialisation of research findings, universities interact with industries and the public as buyers of academic products. Thus, according to the universities, members of the public are given the identity of users, and the relationship between the universities and the public is that of a commercial institution and customers, whereby the medium of exchange between them is transformed into revenue for the universities. Moreover, universities are by this statement made commercial income earners, and unlike what used to be the case in the past, commercialisation is the major source of funds for the universities. In the statement however, the idea that commercialisation is a major source of income is not built on Tanzanian grounds or evidence, but is something that appears to be learnt from what is claimed to be happening in other countries, 'developed' countries in particular. Therefore, the statement appears to be for the purpose of convincing Tanzania that commercialisation is worth pursuing.

Commercialisation is further presented in a positive manner as an efficient way for research to be disseminated and used. This is explained in, for example, a statement in the 2010 National Research and Development Policy, p.18. The statement tells universities that if the public is to use the Intellectual Property assets of the universities, then the most efficient way to allow that is through commercialisation. Thus, efficient universities should establish commercial interactions with the public majority. The statement also carries an argument for the creation of commercialisation units in the universities, which are incubation, entrepreneurship centres and venture capital.

By choosing commercialisation as a strategy for making stakeholders participate in financing higher education, the universities have to advertise, engage in sales promotion and other marketing efforts for their research proposals and/or results. Research, and higher education provision for that matter, ceases to be free, and so those who cannot afford it (the poor majority) will not only have no access to university research outputs but also issues of interest to them are unlikely to be researched, since they have no power to commission research. This corresponds to what Giroux (2002) observed in the United States that, due to neo-liberalism, research projects which are not lucrative are marginalised, under-funded or eliminated.

Nonetheless, the risks of commercialisation have not gone undetected by the universities themselves. For instance, commercialisation has been found to involve controversial interests, in that it requires the introduction of a system that can control the concomitant risks. This is revealed in a statement in the UDSM Intellectual Property Rights Policy, p.12. The statement implies that commercialisation of intellectual property has to be monitored because it can undermine public

interests in favour of private interests, by leading researchers away from curiosity-driven research. This statement shows that the university wants to proceed with attracting research funding through commercialising its research while at the same time intending to retain curiosity-driven research. In my opinion, it remains unclear how research for curiosity's sake can attract funds from private institutions that are almost always interested in research that can bring commercial gains (which is also what is favoured in the WB model of KBE).

In the literature, other disadvantages of commercialising higher education are further highlighted. For instance, Bok (2003) claims that the commercialisation of higher education in the United States of America, though seemingly beneficial in terms of making a monetary profit, is disadvantageous in many ways. The disadvantages include undermining academic standards through prioritising money; damaging the academic community by creating previously absent tensions between departments and academics from different disciplines; and risking the reputation of universities in the eyes of the public. In addition to the disadvantages it brings, commercialisation strategically tunes universities to a new political-economic order, whereby the value of knowledge is determined economically, meaning that it is commercially valuable.

Similar to commercialisation, another action by universities, as depicted in the documents that were reviewed, is the marketing of academic activities. Universities are directed by policies to market their research. Evidence for this new direction can be seen in the National Research and Development Policy, pp.17-18. In the statement, the marketing discourse is articulated together with discourses on research, which is an activity of universities. The statement calls for mechanisms allowing the marketing of research results of institutions. The statement further orders the formation of commercial interactions between research institutions and partners from the private sector.

In yet another statement, marketing is given primacy in institutional research policy objectives. This statement comes from UDSM Research Policy and Operational Procedures, p.11. The document further implies that academics need marketing skills so that research can be fully utilised. It therefore puts together academic, commercial and neo-liberal discourses (competition, marketing, research and the private sector). Through these discourses, it depicts what is perceived to be the current situation as well as the kind of interactions that universities need to have with the public and private sector following the introduction of KBE ideas in higher education.

Indeed marketing has become an authorised way of universities interacting with higher education stakeholders. For instance, one of the ways of disseminating research results outlined in UDSM Research Policy and Operation Procedures is producing a 'good brochure to market the university's research activities' (p. 26). This style is similar to what was observed by Bertelsen (1998) in South Africa, namely, that the marketing of higher education is accelerated by university administrators through their adoption of a corporate management style and employment of the language and logic of business to redefine priorities and reshape procedures in the universities, under the influence of neo-liberalism.

Inculcation of KBE

The study also found out that KBE has been inculcated in the practices of academics in Tanzania through the new identities the discourses are assigning to them. These new identities are seen in the documents that were reviewed for this study. Based on these documents, academics in Tanzania are competitors for research funds and universities are now identified as competitive institutions when it

comes to securing funds for research. This can be seen in a statement in SUA Corporate Strategic Plan, p.14. The statement described how academics are now obliged to become competitors under the new 'rules of the game' or risk being side-lined when seeking to secure research grants. The statement articulates together the term research and KBE discourses, competition and publication in international refereed journals. Publishing in international refereed journals is presented as a prerequisite for securing funds and an indicator of how competitive an academic is. This trend of academics becoming competitors for research funds was confirmed by the interviewees.

A similar identity that has been acquired by academics as a result of KBE is that of lobbying researchers. Based on the guidelines in the policies, academics and their institutions have become solicitors for research funds. This is revealed in, for instance, a statement in UDSM Research Policy and Operational Procedures, p.13. In the statement, it is also recognised that obtaining funding from sources other than the government undermines the sustainability and relevance of research. In other words, subjecting universities to soliciting research funds poses the risk of leading universities into research that is not in the interests of the public but of the financiers. Therefore, since the excuse for diversifying sources of funding (that of meeting KBE requirements) has starved universities because the government has reduced its funding, they have no way out other than turning individual academics, university departments, institutes and colleges into 'solicitors' for research funds. The statement further highlights that this soliciting has to be done at both the local and international level, thus opening the door to whoever has money, from whatever corner of the world, to be a 'partner' to academics in Tanzanian universities. In other words, the KBE requirement of diversifying funding sources makes academics in Tanzania seekers of, or beggars for, research funds from whoever has money. Had the government continued to provide sufficient funding, the universities would probably have ceased to be dependent on donors and their conditions. However, under the current conditions the situation (donor dependence as pointed out in the UDSM Business School Research Agenda, p.9) persists.

This donor dependence and government withdrawal corresponds to what Bertelsen (1998) observed to be the development of neo-liberalism, whereby governments are being reduced to being mere regulatory organs for the flourishing of commerce and trade, while surrendering the control of key issues to private powers. Similarly, Levidow (2002) writes that through financial dependence, higher education in Africa has been forcibly 'marketised'.

The introduction of policies that support the diversification of funding sources for universities has also turned academics into entrepreneurs in the academic business. Examples of this are depicted in a statement in the UDSM Faculty of Arts and Social Sciences Research Agenda, p.27. According to the statement, academics are supposed to be enterprising in canvassing resources so that the university can attain its objective of mobilising resources for research. This implies that academics are to organise research-related business ventures and assume the possible risks involved in so doing. This corresponds to Jessop's (2008) observation that under the influence of KBE, universities are being transformed into enterprising firms. Also, as observed by Kenway, et al. (2004a), following the adoption of KBE policies, academic entrepreneurship is emphasised in different countries' higher education directives.

Generally, the enterprising/entrepreneurship discourses come from the world of business and so they reorient education to academic capitalism. As argued by Slaughter and Leslie (1997), academic capitalism has advantages and disadvantages. While its advantages include the enhancement of relationships between universities and external groups, substantial research and teaching spill-over,

the disadvantages are consumption of academic resources (by the external groups), loss of time for basic research and for teaching, and employee proselytising.

Furthermore, due to KBE, academics are being made marketers of research outputs. In addition to their basic qualifications, they are now required to have marketing skills. In a statement from the UDSM Research Policy and Operational Procedures, p.11, enhancing the marketing skills of academics is given ascendancy amongst policy objectives and is taken to be a way of ensuring that academics' research expertise is fully utilised.

Besides this, as a result of being advised to be entrepreneurs, most of the academics in the universities that were involved in this study have developed personal strategies for finding money from outside the universities, not only for research but also for personal needs. This corresponds to what was observed by Slaughter and Leslie (1997) when they suggested that the pressure exerted by academic capitalism on higher education has compelled academics to resort to market-like efforts to secure external funds.

Materialisation of KBE

As a result of introducing KBE-related elements in Tanzania's higher education, there has been new constructions and reorganisation of space in the universities that were involved in the study. This is manifested in, among other things, the establishment of a Lifelong Learning Unit, a Centre for Entrepreneurship, and an ICT college at one of the universities, and the establishment of a Technology Transfer Department at the other university.

The effects of KBE on higher education in Tanzania are also apparent through institutional conditions that require academics to publish their work in international refereed journals. The conditions are found, for example, in a statement in SUA Corporate Strategic Plan, p.14. Apart from 'publishing in international refereed journals' being one of the indicators of innovation in a country (according to the WB model of KBE), in the statement publishing is presented as a prerequisite for successful competitiveness (a KBE discourse) when vying for research grants. This implies that if research grants were not subjected to competition, publishing in such journals would not have been that necessary. The statement also connotes that the strength of a proposed study does not matter much if the one who is proposing it has no significant record of publishing in the journals which impress the providers of research grants.

Moreover, universities in Tanzania have made efforts to face the challenges of KBE by developing institutional Intellectual Property policies. One of the institutional documents (the UDSM Intellectual Property Rights Policy) mentions categorically that the development of the policy is a result of an era (sic) of KBE, alongside the modern digital society and globalisation.

Apart from materialisation of the theme of institutional policies, intellectual property is now an element that constitutes part of the higher education curriculum, as revealed in a statement in the document mentioned above. The statement explains that, following the enactment of the institutional intellectual property policy, intellectual property is now one of the courses that are offered in every faculty/college of the respective university. As observed by Giroux (2002), citing a case from the United States, the welcoming of the intellectual property policy discourse in higher education is a result of universities giving in to the demands of the marketplace and increased influence of neo-liberal values on higher education. Neo-liberal-oriented companies have an interest

in this as they make big profits through the controlling ownership rights to such intellectual property.

The effects of KBE on university practices are also manifested in the introduction of several elements in the curriculum, which have to do with KBE. For instance, at one of the universities involved in this study, the concept of KBE is taught in a comparative education course and there are cross-cutting courses on new skills as well as on entrepreneurship. According to the interviewees, entrepreneurial courses have been widely introduced across all disciplines in both universities. They pointed out that entrepreneurial skills are now a major requirement of the market and the reasons for introducing them in the curriculum are numerous, including the fact that direct employment for graduates is now very scarce in the country, and so graduates need to be entrepreneurs so that they can create their own jobs.

This change in Tanzania's university curricula is similar to what Kenway, et al. (2004) observed about the introduction of entrepreneurship in the European education system, following the EU desire to become the most competitive KBE in the world. The EU wants knowledge about entrepreneurship to be taught in the primary, secondary and university level of education, regardless of one's discipline. 'An engineer should be able to draft a business plan [just as he or she conducts] a scientific experiment' (European Commission, 2000, cited in Kenway, et al., 2004, p.335). Thus, due to KBE, entrepreneurship has become a cross-cutting element of higher education curricula, in both developed countries and low-income countries like Tanzania.

Furthermore, some interviewees explained that KBE has been partly influential in several recent university curriculum reviews. The reviews have been mainly for the purpose of accommodating local and international market requirements, or foreign investment requirements as well as global trends. These reviews have seen, among other things, the introduction of competence skills, such as information-processing skills, multi-lingual communication skills and research skills across disciplines. Additionally, ICT is now fully integrated in the curriculum, which has also been a requirement of higher education stakeholders. The interviewees also explained that ICT is meant to replace chalkboard and paperwork teaching in the universities, though the kind of ICT training and its use by students leaves much to be desired. For instance, giving a general comment on KBE, one interviewee was of the opinion that ideas embedded in it, such as the development of ICT, are really good but unfortunately are not implementable in Tanzania at the moment, and most of what the policies say about it remains little more than a pipedream.

It is apparent that the KBE package has been taken up by Tanzania and several other countries, some of which are in a good position to undertake it and benefit from it. Tanzania, however, given its economic (as well as its political and cultural) position, does not seem to be able to afford it (as proposed by the WB). So far, attempts to pursue KBE have already had adverse effects on the country. The effects identified in this study are as follows.

As said earlier, KBE requires a high level of enrolment in universities; that is, an increased number of university students so as to provide a critical mass of highly skilled workers. Based on this requirement, Tanzania has ventured into enrolling large numbers of students. As a result, according to the interviewees, the quality of higher education in the country has been jeopardised.

Also, as observed in the documents reviewed for this study, in relation to the KBE requirement of producing highly skilled individuals, policy statements on higher education enrolment are concerned

about the challenges which have resulted from high enrolment. The concerns appear in, for instance, a statement from SUA Corporate Strategic Plan, p.15. In the statement, it is mentioned that the pressure to enrol large numbers of students in universities is putting scholastic quality at risk. It explains that quality is undermined by a mismatch between the current number of students and the facilities available in the universities. The statement further indicates that the universities are also increasingly worried about becoming more dependent on donors. Unfortunately for the institutions, while they are increasing enrolment, donors are refraining from financing the maintenance and construction of teaching infrastructure.

Other difficulties the universities have experienced as a result of increased enrolment include a heavy teaching and supervision load carried by academics. This is explained in one of the Research Agenda documents from the UDSM. Similarly, according to the interviewed academics, high enrolment in the universities has led to overcrowded lectures, again affecting the quality of the lectures in terms of audibility and communication in general.

The findings also suggest that the quality of students' assessment has been negatively affected. There are not enough learning materials, and so that the intended development of Science and Technology (a KBE favourite) has been rendered almost impracticable. The interviewees also observed that high enrolment has limited the possibility of developing the desired skills. Its ultimate result is poorly qualified graduates, to the extent that employers in the country prefer to engage graduates from neighbouring countries rather than graduates from Tanzanian universities. The interviewees were further worried that KBE, or at least the way it has been implemented in Tanzania, focuses more on high enrolment numbers and less on the quality of higher education in the country.

Again, the resultant increase in the number of universities in the country (as pointed out earlier) has not been accompanied by an increase in the number of academics; thus, the few academics available in the country have to lecture in several universities. This trend, it has been suggested, is putting the quality of higher education at risk, since lecturers cannot (be expected to) deliver the same quality of teaching, supervision and assessment in such hectic working conditions. It is worth noting here that this trend may also be attributed to the fact that Tanzania is a low-income country and so cannot afford to remunerate the appropriate number of lecturers to cope with the sharp rise in the number of universities and the skyrocketing enrolment. This trend may also be a result of poorly implemented policies. Thus, although statistical data on higher education in Tanzania may at first glance appear encouraging, the country's higher education policies promote quantity at the expense of quality, besides which the development of high-level skills in universities takes them away from their function of developing professionals rather than artisans.

Furthermore, in relation to the KBE requirement of diversifying research funding sources, the policies and directives for Tanzania's higher education require academics to secure external funding for research on their own. As explained earlier, currently the Tanzanian government offers little or nothing in the way of university research grants. Academics are therefore forced to look for money elsewhere, which in turn means that they end up serving institutions other than their employers. In most cases, these 'new' institutions (donors) are foreign. However, as observed by Mamdani (2011), such externally driven research is often of little benefit to the country in question. 'Incorporation of individual local members into externally-driven projects ... resemble[s] more of an outreach from [European countries] rather than a partnership between relative equals' (Mamdani, 2011). In this case, such KBE ideas do not favour local universities (the employers of academics) because at the end of the day they have to pay the salaries of individuals who are spending a substantial amount of

their working time serving someone else. Thus, unless the government resumes the practice of providing research funding to academics, or passes a law that binds foreign financiers to channel their funds through employers, universities will continue to shelter individuals who are of little benefit to the universities.

Similarly, due to this drive to diversify funding sources and the pressure on academics to secure funding for their own research, academics are unable to specialise in their chosen areas any more. Data show that academics from across the fields tend to apply for any research opportunities that open up; for instance, some interviewees reported cases where some academics from a college of engineering now apply to conduct research on educational disciplines. In other words, academics are now jacks-of-all-trades, dancing to the tune that is played at any given time. In a similar vein, one of the interviewees expressed his concern about this current situation by arguing that generally speaking the research agenda in Tanzania's higher education is no longer locally driven, but rather it is steered by donors who now have full control over what research questions are investigated.

The efforts to erect the ICT pillar of KBE through higher education have also had a noticeable effect on Tanzanian academia. Electronic communication, for instance, is now used as one of the major means of exchanging information between administrative officials and academics, academics and their colleagues, as well as academics and students. ICT has also been introduced in terms of e-learning, manifested in online teaching and learning, submission of assignments electronically, and computerised dissemination of students' examination results. The interviewees confirmed that the universities have now introduced e-learning, and there has been an institutional transformation programme which includes, among other things, the introduction of ICT in universities. For example, one of the university schools is now offering online postgraduate diploma courses. At another university, a programme managed by a virtual learning centre is run to train academics in the use of different ICT programs, so that they have the necessary skills to facilitate e-learning. However, some of the interviewees had reservations about the way e-learning is being handled. They complained that it has led to an increase in academic malpractice, such as plagiarism, and abuse of internet access by students, following the installation of computers on campus. Alongside these problems, the participants stressed the lack of intensive and/or appropriate ICT training courses for local students.

Conclusion

Based on the findings, a conclusive answer to the research question, how has KBE affected the practices of academics in Tanzania, is that KBE has changed higher education in Tanzania, particularly in terms of the introduction of practices that correspond to ideas embedded in neo-liberalism. The changes have forced local universities to adhere to global trends, which are in line with the process of making capitalism a global economic system. The effects are also apparent in the fact that local academics are being turned into subordinate agents of an exploitative system, exhausted jacks-of-all-trades and servants of institutions other than their employers. Such changes have had adverse effects rather than being beneficial to Tanzania. For instance, while the construction of KBE has contributed to the quantitative growth of higher education, it has undermined the quality of higher education in Tanzania. There is a need therefore for policy and practices reform so that academics and higher education in general can be repositioned to work for the benefit of the country and regain its intellectual freedom.

Drawing on suggestions made by the participants, KBE should be fine-tuned to suit the needs and realities of Tanzania; it should not be adopted but adapted in such a way that the adverse effects realised so far are avoided. It was also suggested that the academic nature of universities should be maintained (it is not worth trashing as the world constructs a new higher education format). Furthermore, the interviewees suggested that higher education policies in Tanzania should be reviewed to enable, among other things, academics in the country to serve their employer and society rather than foreign institutions.

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