

Capacity Building in Agriculture **RUFORUM Triennial Thought Pieces: ISSUE 11**



The Making of the 'Next Generation' African **University: Response to Global and Regional Trends** and National Agendas

Higher reform education is shaped bv developments at university (Keeling 2006). The making of the 'Next Generation' African university won't be easy. The African university is relatively a new entrant in the global higher education landscape, compared to European and American counterparts whose histories date back to medieval era and seventeenth century at the very least.

Unlike the British and French university systems it was purported to replicate, African university fell short of Oxbridge's and grande école's models. Instead, the goal of the founders had focused on training administrators for need of immediate colonial governments, as well educating the political elite of post-independence era (Cloete and Maasen 2015).



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Furthermore, the expansion and development of African higher education sector, especially in the Sub-Sahara region, was slowed down from mid 1980s by a change of tone in World Bank's higher education policy which claimed that the return to a dollar spent on primary education was double the return to a dollar spent on higher education (Psacharopoulous et al. 1986). This led to a decline in the average public expenditure per tertiary education student by 82% (Cloete Maassen 2015), causing Sub Sahara Africa's tertiary education enrollment ratio to stagnate below global average.



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In contrast, starting in mid-1990s, Asia, Eastern Europe, and Latin America, and especially the BRIC countries - Brazil, Russia, India, and China – succeeded in expanding their higher education systems considerably through a mix of subsidies, charging of tuition fees and expansion of private higher education (Carnoy et al. 2013).

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African university is part of dynamic global higher education system that is continuously adapting its traditional roles, its internal organisations, its leadership modes, its governance structures, its intellectual cultures and values, its funding models, and its mode of operation and service delivery in order to respond to new trends and increasing demands imposed on it by the society (see Asby 1958, Bowen 1982, Bok 1982, Clark 1998, Castells 2009; Shattock 2009, Kerr 2001, and Akec 2020).

The 'Next Generation' African university is facing a moving target. It needs to expand horizontally and vertically in order to catch up with the rest of the world. This thought piece aims to share author's perspective on the future of African higher education systems, viewed through a university lens, and based on the global and regional trends that are forcing change in higher education systems in Asia and the western world as they transition to Fourth Industrial Revolution and Education 4.0 (Schwab 2016, and Ernst and Young LLP 2017).

Learning from BRICs

In the hindsight, Sub Sahara African region could have used the World Bank's higher educational alternative financing recommendations in order to expand its higher education systems significantly. While taking a note of efforts by the University of Makerere in Uganda to apply market-based solutions to financing of the expansion of university education, World Bank's alternative financing policy proposals were either ignored or resented (Mamdani 2007).

In contrast, from early 1990s, the BRIC countries (Brazil, Russia, India, and China) succeeded in expanding their higher education systems considerably by making more resources available to tertiary education through a mix of subsidies and charging of tuition fees (see Carnoy et al. 2013:9). It was a recognition of the role of higher education as a source of economic competiveness that, in addition, yields higher private returns to individuals. Private higher education was encouraged by BRICs for those who could afford it. It resulted in massive expansion and growth of the sector over the same period in which African higher education systems had stagnated (Carnoy et al. 2013). For example, graduate enrollment ratio for Brazil, India, and China, rose from 10%, 5%, and 1% in 1975 to 36%, 14%, and 24% in 2009 respectively; while that the average for Sub Sahara Africa increased from 1.6% in 1975 to 7.4% over the same period. Another feature of expansion of higher education in BRICs countries is differentiation, vocationalization, and inclusion/rationalization.

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In India, for example, institutions of tertiary education are grouped as follows: First tier comprising selective research focused institutions providing high quality research and innovation and speak to nations' intellectual imperatives; Second tier of comprehensive lower cost institutions offering professional courses with the aim of producing industry-ready graduates and responsibility of addressing economic concerns and education more students; and Third tier of non-selective, open, and wide spread foundation institutions offering diverse courses with purpose of producing well rounded graduates with skills needed by local industries. Vocationalisation in areas of engineering, computer science, and finance allowed India to meet globalization's demand for manufacture of high-value goods.

African University in the Context of a Changing Global Higher Education Systems

The factors and trends that will drive change in higher education systems in Africa, include the everincreasing call on the universities to enhance national economic competitiveness through training and capability improvement in a globalized knowledge economy (Cloete et al. 2015, Weigratz 2009: Akec 2018a). This will necessitate that African university acts as the engine of national economic development, cultural renewal, military power, and social progress; be a catalyst for innovation needed for national industrial development and value addition; be responsive to internationalization and globalization of higher education market; adaptive to corporatization of university governance; able to diversify its resource bases in the face of falling public financing of higher education operation; can provide educational opportunities to broader sectors of population, including the lowincome groups in the society through massification; and able to weather the impact of public health emergencies.

To achieve the above goal, this, African tertiary education systems must differentiate by allowing its flagship universities to ascend to first-tier research-intensive universities that can join the ranks of the world-class universities, while serving a limited but talented number of students. African university must also respond to the unfolding Fourth Industrial Revolution that is being set in motion by the advances in digital technologies that fuse and blur the lines between the physical, digital, and biological spheres' (Schwab 2016). These technologies include mobile devices with large data storage and processing capacity, big data for decision support, robotics and autonomous vehicles, artificial intelligence, the Internet of Things, nanotechnology, 3D printing, biotechnology, and quantum computing, among others.

Furthermore, the digital technologies that are responsible for unleashing the Fourth Industrial Revolution will also usher in Education 4.0 that is going to force universities to African universities to review their enrollment policies, their educational delivery mechanisms, and their assessment and





credentialing methods in order to enable personalized and life-long learning for their clients (Drucker 1998, Kerr 2001:207, Ernest Young LLP 2017:37).

International Reforms in University Governance

Other international trends driving the modernisation of higher education include changing role of the state in university governance, its ramifications on university's internal governance structure, and distribution of authority in the collegiate (Shattock 2014). This modernisation push is driven by the recognition by the governments and regional blocks such as EU of the important role universities play in knowledge economy, implications for funding, on how authority is shared within the university, and between university and external actors, including the state. Reforms in European and Japanese universities are driven by state legislation, but much less so in UK and Australia; while the state plays no role in regulating universities in United States.

The US and Anglo-Saxon reforms have tilted towards 'enterprise university' and marketisation of higher education system in line with new funding arrangements that give universities more autonomy. Although received with some resentment within the European university system, giving universities more autonomy and borrowing business practices was aimed at improving decision-making processes in the university.

In Germany, Norway, Finland, and a great number of Northern European universities, which were founded on the German Humboldtian model that made emphasis on research-based teaching and significant freedom to the professor, the dwindling public funding is forcing universities to change and "do more and better with less."

What is more, the Napoleonic system of higher education that is dominant in France, Italy, Spain, Portugal, and many countries in Southern Europe, and is characterised by a central state control and a general agreement between the state administration and the academic estate (or 'the academic oligarchy') but is undergoing reforms that were inspired in part by the advent of the new public management (NPM), and by the need to harmonize the European higher education systems with Bologna process.

Meanwhile, the Japanese universities which were founded in the latter half of nineteen century followed Humboldtian model that linked research and teaching closely, while adopting Napoleonic system of central control through a strong Ministry of Education (Shattock 2014). Reforms were initiated in 2004 to tackle the inefficiencies of the system, and improve effectiveness. These were also inspired by New Public Management thinking, as well as the push to implement neoliberal reforms in public service. A law was passed that gave universities status of national university corporations



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(NUCs) status with a legal personality and autonomy, and strong powers to university presidents, in line with global trends (Christensen 2010).

Innovation and Entrepreneurialism: The Third Mission

According to European Commission, universities are strategically positioned at the crossroads of research, and education; and that 'innovation universities' hold the key to unlocking of knowledge economy. In order to fulfil this 'third mission' (Williams 2009) besides teaching and research, universities must be capable of acting entrepreneurially to exploit opportunities in their economic environments in timely fashion. To be entrepreneurial or innovative, African university must have institutional structures that are capable of expending energy and taking risks. And depending on how the incentive arrangements in place, entrepreneurialism may be stimulated or may be impeded.

Final Thoughts

Universities globally, African universities included, share a common linage and a common destiny - to change and thrive, or face the consequences of failing to respond to the forces shaping its future. The future of African university depends on the correct reading of critical factors and developments to which it must respond.

Firstly, in order to be responsive to opportunities in their economic environment and to use its resources effectively, African universities must be autonomous, better managed and well led. That means less state control on African university and more freedom to university administration to decide on how to use its resources. It also means more power to university presidents in line with New Public Management.

Secondly, African university must expand to meet the increasing demand for tertiary education without compromising quality or losing competitiveness. Vertical diversification, as opposed to horizontal/binary diversification, will allow a few flagship universities to be supported to climb to top tier of the world ranked research universities necessary for the production of cutting-edge knowledge that is needed by innovation and industrialisation.

Thirdly, beside its core business of research and teaching, African university has a third mission to accomplish– services to society and entrepreneurship. Human resources management practices at African universities such as the level of pay, academic promotion procedures, and system of motivation of staff performance be aligned with institutions' strategic direction in order to stimulate entrepreneurship among the staff.

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Fourth, and final thought, African university must transition to Education 4.0 that will usher in Fourth Industrial Revolution that is enabled by information technologies that are disruptive such as mobile internet, social media, cloud computing and big data, artificial intelligence, massive online open courses (MOOCs), advanced materials, and genomics. These technologies are changing how students learn, when they learn, and where they learn. It will accelerate the globalization of university education in ways never imagined previously. The choice for African university is to respond or perish.

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