

The Catalytic Role of Covid-19 Pandemic in the Paradigm Shift in the Cross-Border University Education: The Case of Uganda

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Abstract

Globalisation, technological advancements, global university ranking pressure and cross-border education service trade have gradually been causing a paradigm shift in the cross-border university education sector. The COVID-19 pandemic has had devastating consequences for university education characterised by massive infections, closure of learning institutions, and deaths of students, academics and scholars. While it gravely affected the cross-border mobility of students, academics and scholars, it ironically proved to be a catalyst for the paradigm shift from physical to virtual cross-border university education. This study assessed this catalytic role. A descriptive study design which incorporated both quantitative and qualitative research approaches was adopted. A study population of 39 public and 12 private universities in Uganda was targeted. A desk review was conducted focusing on electronic databases, websites, online libraries and some grey literature. Descriptive analysis was conducted for quantitative data and content analysis for qualitative data. It was established that cross-border university education in Uganda was still low-key, with only a few of the universities practising it. The inbound cross-border mobility outweighs the outbound; and the pandemic is catalysing the current paradigm shift

towards a highly virtual paradigm characterised by virtuality, flexibility, technological savviness and learner-centred learning. Virtuality was found to be expressed in terms of virtual cross-border mobility, virtual/online student enrolment and virtual learning; while flexibility was in terms of teaching and learning, and of curriculum coverage. Cross-border mobility having dwindled, universities need to embrace the new paradigm and expeditiously review their cross-border policies accordingly.

Keywords: Cross-border higher education; Paradigm shift; COVID-19 pandemic; Uganda.

Introduction/Background

Higher education (HE) is sometimes referred to as post-secondary school education and its apex is university-level education. The term “university” was derived from the Latin word “*universitas*”, which means “the totality” or the “whole” (Verger, 1992). In an elaborate way, Alemu (2018, p.211) states that “a university represents both a higher learning institution and a community of scholars or persons who promote high level of intellectual development and research. It is a source of universal knowledge and highly skilled human power”. The universality of university education is best achieved by bringing into perspective the understanding that the universe is diverse and that it can best be understood by sharing and comparing experiences, knowledge and research findings from different parts of the world in the quest to spur the knowledge economy. In support of this, Yakubu (2017) posits that, apart from university education leading to an advanced level of understanding in a particular field of knowledge, it must also be a mechanism for learning the tools and methods of producing knowledge to have the ability to keep on learning and producing new knowledge long after a student has graduated. Avenstrup (2007) as cited by Irez and Han (2011) adds that educational change of any significance involves changes in organisational structures, communications, resource allocation, practices, beliefs and attitudes.

In the case of Africa, a university is supposed to be “developmental”, acting as “a center for pursuit, promotion and dissemination of knowledge, research, intellectual leadership, manpower development, social and economic modernization, and intercontinental unity” (Ndlovu-Gatsheni, 2017). In line with this, the Ministry of Education and Sports (MoE) of Uganda (2021) outlines the goals of university education as being:

to train high level technical, managerial and professional personnel for all sectors of national life; generate advanced knowledge and innovations through research and translate or adapt them to local situations; equip the students with knowledge, skills and attitudes to enable them to join the world of work; and produce individuals with positive attitudes towards personal, community and national development.

While these goals seem to have a local focus, Uganda also “exports and imports” university education through cross-border university education (CBUE). Othieno and Nampewo (2012) posit that Uganda pegs its competitive advantage in the education sector in the East African Community (EAC) on its global university ranking, tuition and related costs, and the quality index for secondary education. They, however, assert that this has not made Uganda a major regional player in terms of foreign student enrolment in sub-Saharan Africa.

University education is dogged by many challenges that revolve around its governance and management, funding, curriculum design / alignment, student retention, student employability, quality of research, learning and teaching, adoption of emerging technologies, new-generation staff etc. (Saker et al., 2010). As for Uganda, they also include limited university education quality regulatory capacity, lack of mutual recognition for some qualifications across borders, limited funding and training facilities, and lower staff remuneration compared to some regional partners (Othieno & Nampewo, 2012).

In line with globalisation, technological advancements, global educational trade and other factors, CBUE has over time been gravitating the university education towards a new virtual CBUE paradigm. This seems to have been rudely interrupted in late 2019 by the emergence of the COVID-19 pandemic, which affected local and international university teaching and learning programmes through territorial lockdowns, institutional shutdowns and curfews. This study, however, argues that these “disruptions” can actually be perceived as constituting a catalyst in the CBUE paradigm shift which, in any case, was already in the making.

Problem statement

According to the Government of Uganda (GoU) (2021), the COVID-19 pandemic hit the education industry very hard. Academic calendars, teaching, learning and research undertakings, both locally and internationally, were disrupted severally during the pandemic. The CBUE was not spared and, in essence, the global trade in education provision suffered the consequences of the pandemic, as did service trade, according to the Organisation for Economic Cooperation and Development (OECD) (2022). Maqsood et al. (2021) indicate that with standard operating procedures (SOPs) such as social distancing and the closure of educational institutions, ICT became the main means of continuing educational activities, including cross-border university education. Karakose (2021) opines that, due to the pandemic, teaching and learning environments experienced drastic changes as governments imposed strategies to curb the pandemic.

The need for the university education sector to evolve for the sake of its existence and relevance is indisputable, and hence the emerging paradigm shift from the current largely physical CBUE to the ‘new’ largely virtual CBUE. While this paradigm shift is eminent, the pandemic may actually be a “blessing-in-disguise” catalyst to this effect. The argument is that there have been other “phenomena” that have of late impacted on university education, leading to the questioning of its value. Globalisation, technological advancements, competition for better global university ranking etc. have created the demand for a shift from traditional

university education and its interplay in the international arena to the virtual CBUE paradigm. While these had been creating a gradual paradigm shift, the pandemic turned out to be drastic and potentially disruptive to the system. As such, the impact of the pandemic on university education, in general, and on the CBUE as it affects students, academics and scholars, in particular, is of great concern to Uganda. The current status of CBUE in Uganda is, however, not clear, and neither is the extent to which the pandemic has impacted on its university education, nor whether it has played any catalytic role in the paradigm shift or not. This study attempted to address these concerns.

Study objectives

This study was guided by the following objectives:

- i) To establish the status of cross-border university education in Uganda.
- ii) To assess the effects of the COVID-19 pandemic on the university education sector in Uganda.
- iii) To establish the catalytic role of the COVID-19 pandemic on the CBUE paradigm shift in Uganda.

Literature Review

The status of cross-border university education (CBUE) in Uganda

CBUE, according to Knight (2005) and Sanga (2017), is a multifaceted phenomenon which includes the movement of people (students, academics, scholars and researchers), academic programmes, providers (such as branch campuses) and projects (capacity-building, research and curriculum development). In short, according to OECD and the World Bank (2007) as cited by Chan (2018, p.94), it is “the movement of students, programs, providers, curriculums, projects, research, and services in the education sector across national jurisdictional boundaries”. CBUE has four modes of trade, namely cross-border supply of services; consumption abroad where students cross borders to pursue studies; the commercial presence of providers when branch campuses, twinning and franchising arrangements are used in CBUE; and the presence of persons abroad, as seen in the mobility of academics and scholars across borders (Varghese, 2017).

Not only has CBUE evolved from people to programmes to provider mobility, and now to education hubs (Knight, 2012), it has also gradually shifted from a training, research and development cooperation framework to a partnership model and now to a commercial (multi-trillion-dollar business) and competitiveness model (Knight, 2012; Collins, 2007). Chetro-Szivos (2010) adds that CBUE has been used as an approach to attaining collaborations, generating revenue and responding to the global demand for an educated workforce and a globalised society. CBUE being a profitable, market-driven activity, universities compete in attracting students, establishing branch campuses and expanding their cross-border study programmes (Varghese, 2017). Rajkhowa (2013) opines that CBUE is now categorised as an internationally tradable commodity upon being included in the 1995 General Agreement of Trade and Services

(GATS) of the World Trade Organisation (WTO). Unfortunately, it has become somewhat unidirectional and detrimental to the developmental strategies of the developing countries (Stella & Gnanam, 2005). Similarly, local culture is threatened by the influx of political and economic value-laden foreign CBUE content from developed countries (Xu, 2019). Financial flow, incidentally, is also from developing to developed countries (Varghese, 2017).

There is a great opportunity for CBUE in the East Africa Community (EAC), which is made up of Kenya, Uganda, Tanzania, Rwanda, Burundi, South Sudan and the Democratic Republic of Congo (DRC) based on its customs union which allows for *free movement* of goods, persons, labour/workers, services, capital, right of establishment and right of residence. Indeed, Makerere University in Uganda and the University of Nairobi in Kenya, which are among the top-ranked in the EAC region, annually enrolls many international students from Tanzania, South Sudan, DRC, Burundi and Rwanda (Itaaga et al., 2013) as much as its CBUE is in its infancy (Sanga, 2017). Dar es Salaam University in Tanzania, Makerere University and the University of Nairobi have a long-shared history, having started together as the University of East Africa. While they are best positioned to spearhead CBUE in the EAC region (Chetro-Szivos, 2010), they seem to have lost the mantle to private universities, notably Kampala International University (KIU) in Uganda and Mount Kenya University in Kenya, which have set up campuses in other countries.

Among the benefits of CBUE are opportunities for knowledge and technology exchange, penetration of new markets, higher quality education, and cross-fertilisation of knowledge, skills, and cultures (Njuguna & Itegi, 2013). However, these may be undermined by the differences in the education systems and philosophies within the EAC and the political influence on the management of universities in the region (Sifuna, 2012).

In the case of Uganda, cross-border university education has been practised since 1922 when Makerere College was established and in later years served students from Kenya, (the then) Tanganyika and Zanzibar (Kasozi, 2003 as cited by Mulumba, 2013). The inbound cross-border mobility (CBM) statistics in Uganda have grown over time as other universities that also admit international students have since been established. According to Bagonza et al (2021), currently there are 39 private and 12 public universities in Uganda, and most of them admit foreign students. Earlier, NCHE (2018) had reported there being 9 public universities remained and 44 private Universities. There seems to be scanty literature on the extent to which these universities are practising CBUE but, according to Hassan and Macha (2020) (Ssempebwa et al., 2011; Kessio & Mureithi, 2014), Makerere University, the biggest and oldest public university, and KIU, a private university, are the two leading universities. The inbound CBUE enrollees come mainly from Kenya, Burundi, DRC, Eritrea, Rwanda, Somalia, South Sudan and Tanzania, while the main outbound destinations for Ugandan students enrolling abroad are the United States, the United Kingdom, Kenya, Canada and Saudi Arabia.

The effects of the COVID-19 pandemic on the university education sector in Uganda

The World Health Organisation (WHO) declared the outbreak of coronavirus disease (COVID-19) as a public health emergency of international concern on 30 January 2020 and as a worldwide pandemic on 11 March 2020 (Kadowa, 2020). This pandemic, according to Karakose (2021, p.7), “has led to radical changes in the university education worldwide leading to probably the biggest education crisis in human history although at the same time offering significant opportunities to redesign higher education”. Daniel (2020) argues that the pandemic was the largest challenge that university education had ever faced as it forced governments to shut down learning institutions and try to adopt virtual education, which by then was in its infancy in terms of implementation in many developing countries. In their study in Turkey, Korkmaz et al. (2021) established that there was a belief that the COVID-19 pandemic had changed the stakeholders’ view of education.

The first confirmed COVID-19 victim in Uganda was reported on 21 March 2020 (Kadowa, 2020). In the EAC region, Uganda has been second to Kenya in reporting the highest statistics in terms of COVID-19-related infections and deaths during the pandemic. As of 2021, its pandemic-instigated national lockdowns had directly impacted about 73,240 institutions (pre-primary to higher), 15,126,167 learners, 600,000 learners in refugee settlements and 548,182 teachers (Government of Uganda [GoU], 2021).

Uganda experienced lockdowns which extended for months with all sectors, including university education, experiencing serious challenges and which seemed to be gravitating it towards a new university education paradigm as it strove to survive the pandemic. For instance, Ayoo (2021) points out that the pandemic impacted on students’ engagement in university education and this necessitated the need for solutions to address this and other concerns. With lockdowns and the closure of learning institutions, many CBM students, academics and scholars were affected.

The catalytic role of the COVID-19 pandemic in the CBUE paradigm shift in Uganda

The COVID-19 pandemic did not merely cause changes in university education but catalysed a paradigm shift which had been in the offing for some time. The disruptions were indeed the “teething problems” of what came to be considered the “new normal”. Forced by the COVID-19 lockdowns and the suspension of face-to-face teaching in all academic institutions, many universities now adopted a variety of online communication platforms to facilitate teaching and learning. Among those available were WhatsApp, Skype, learning management systems (LMS), videoconferencing, Google Classroom, Google Meet and Zoom groups (Madinah, 2020). Thus, for faculty to remain relevant in university education, they have to become tech-savvy, as the “new normal” arrangement requires that they incorporate technological aids in their classrooms, documentation and communication (Priti, 2019).

Pajares (2012), in citing Thomas Kuhn’s book, *The Structure of Scientific Revolutions* (1962) states that “science” does not progress as a linear accumulation of new knowledge, but

undergoes periodical revolutions called “paradigm shifts”. While it has a variety of definitions, a shift in this case is described as “a fundamental change in the basic concepts and practices of a given discipline or a profound change in a fundamental model or perception of events”. Such a shift, as explained by Kuhn, is “the phase in which the underlying assumptions of a given field are reexamined and a new paradigm is established”. It is a “philosophical and theoretical framework of any kind’ and in the education sector, it can lead to large scale reforms which bring new conceptual frameworks, introduce new educational aims and view on how people learn, and adopt new teaching and assessment approaches, etc.” (Irez & Han, 2011). Indeed, as technology has advanced, so has the need for skills, knowledge and talent (Goldin & Katz, 2008), and this has created opportunities for socioemotional competency, creativity and entrepreneurial capabilities (Auerswald, 2012; Florida, 2012), resulting in the “Second Machine Age” fuelled by artificial intelligence (AI) (Zhao, 2018) in contrast to the “First Machine Age”, which was driven by the steam engines and electricity (Brynjolfsson & McAfee, 2014).

Given the emergence of ICT innovations and a tech-savvy generation of learners (Mushi & Muganda, 2011), open educational resources (OERs) for teaching, learning and research that permit free use and/or re-purposing, are available in the public domain (Tenebe & Ogidan, 2017) and allow for cheaper and faster production and dissemination of knowledge (D’Antoni, 2009). Examples of OERs include modules, textbooks, videos, tests, software and other materials that support access to information (Mushi & Muganda, 2011). Unlike students who are fast at embracing new technology, scholars and academics are likely to be slow adapters to this paradigm shift (Zhao, 2018; Irez & Han, 2011)

As pointed out by Pajares (2012), “the awareness and acknowledgement that a crisis exists, loosens theoretical stereotypes and provides the incremental data necessary for a fundamental paradigm shift”. In the case of the COVID-19 pandemic, three possible scenarios present themselves. First, science may be able to handle the crisis and normalise the situation; second, the problem may be resistant or difficult to solve and so may be left to persist for some time; and third, a new paradigm may emerge, and this will remain so until an alternative paradigm emerges, resulting in yet another paradigm shift. It can be argued that a paradigm shift in the CBHE globally was already in the making, but it is undeniable that the COVID-19 pandemic crisis catalysed the process into the “new-normal” and this came to inform the activities and operations of HE.

Virtual CBUE paradigm (“new normal” CBUE)

As conceptualised in this study by the researchers based on literature by several scholars such as Mushi and Muganda (2011), Madinah (2020) and Priti (2019), the virtual CBUE paradigm – loosely termed as the “new normal” CBUE paradigm – has four dimensions: virtuality, flexibility, technology savviness, and learner-centred learning. Virtuality is characterised by virtual cross-border mobility, virtual/online student enrolment, virtual “lecture room” /e-library space and OERs. Flexibility is seen in terms of what this study calls flexible teaching arrangements (FTA), flexible learning arrangements (FLA) and flexible curriculum coverage

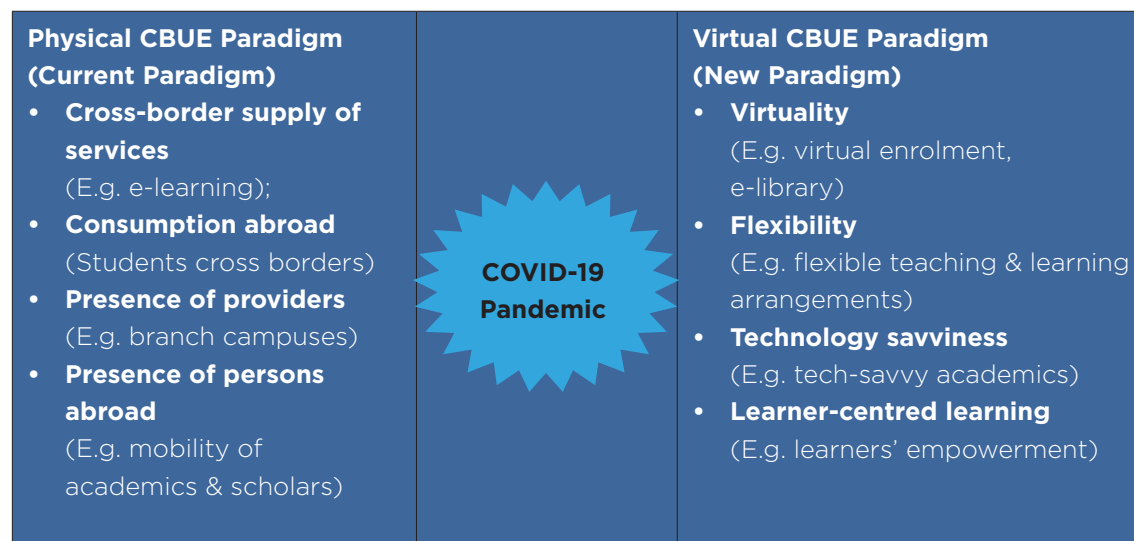
(FCC). Technology savviness is about having tech-savvy academics, scholars and researchers, while learner-centred learning is seen in terms of student learning uniqueness, student empowerment and student learning progress.

Virtual CBM would imply that students, academics, scholars and researchers will have to cross borders ‘virtually’ to learn, deliver lectures or conduct research. Students will enrol for academic programmes online and attend classes online, where they will meet the tech-savvy academics, scholars and researchers. FTA are where, with the use of technology, the delivery of lecture materials can be done anywhere outside the physical classroom and at a time convenient to lecturers and also where the recording of teaching content is allowed for. These kinds of learning arrangements are now referred to as blended learning or hybrid learning. Students attend classes virtually (virtual classrooms) and consult e-libraries and learning platforms that offer more OERs that are diversified and broader. Students thus ‘drive’ their learning under the “learner-centred learning” approach. This will bring in what this study calls, FLA and FCC, where the student may decide which learning modules to enroll for and when, as opposed to the fixed learning timetables as is the case with face-to-face classroom learning. In summary, virtual CBM will become dominant over the physical form, leading to increased mobility of students, academics and scholars.

Conceptual framework

Arising from this literature review section and more specifically, Varghese, (2017); Priti (2019) and Jonker et al., (2020), the following conceptual framework (Figure 1) which conceptualizes the paradigm shift was derived.

Figure 1: Conceptual framework



Source: Based on literature by Varghese (2017) Priti (2019) and Jonker et al. (2020).

According to the framework, the current university education paradigm focuses on the current status of CBUE where cross-border motility is seen in terms of the mobility of students, academics/scholars, curricula/programmes, knowledge and culture, and infrastructure for learning. It is conceptualised that there is a gravitation towards a new paradigm in university education and that this was catalysed by the COVID-19 pandemic. The new (virtual) CBUE paradigm, which is considered to be the “new normal” CBUE, is characterised by four dimensions, namely virtuality, flexibility, technology savviness and learner-centred learning. Most of these revolve around the desired technological advancements in university teaching, learning and research. The backbone of the new paradigm is the revolutionised ICT in terms of infrastructures for learning (hardware and software) and the associated internet connectivity, availability, access and affordability and IT support functions.

Methodology

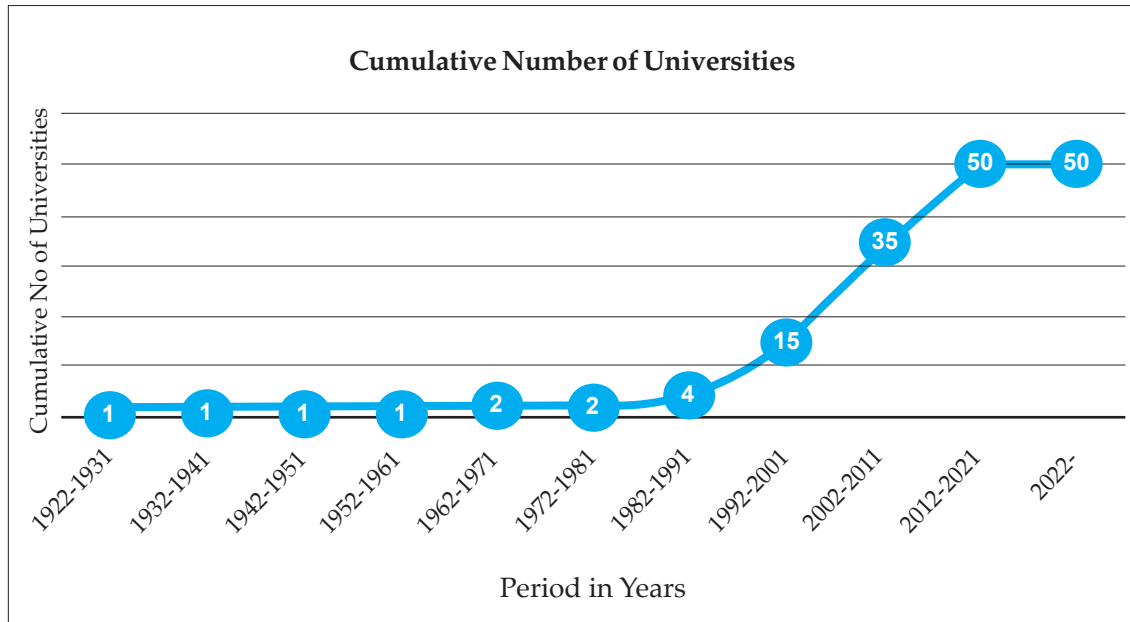
A descriptive study design was adopted and this incorporated both quantitative and qualitative research approaches. The study focused on the currently existing 39 private and 12 public universities in Uganda accredited by NCHE. A desk review was conducted to collect secondary data and literature about the subject matter and the review was guided by three study objectives and the key study concepts which included university education, CBM, CBUE, paradigm shift, and COVID-19 pandemic. Published literature was obtained from electronic sources, official documents, reports and websites, online libraries, and some grey literature was also used. Key among the websites visited were that of the Ministry of Health of Uganda under which there is the COVID-19 Response Information Hub, <https://covid19.gou.go.ug>, the WHO website, NCHE, the Ministry of Education and Sports, and the websites of the different universities in Uganda. Content analysis was used to address the study objectives in which relevant content was ciphered out and presented using narratives and direct quotations. Relevant figures and tables were also adopted where necessary.

Results and Discussions

The results as obtained for each study objective are presented below:

The status of cross-border university education (CBUE) in Uganda

The demand for university education has heightened the need to even cross borders to acquire it as locally, there has been a trajectory increase in the number of both public and private universities. Figure 2 as adopted from University Images (2022) shows the cumulative number of universities in Uganda from 1931 to 2022. It can be appreciated that a trajectory rise in the number of universities was witnessed between 1992 and 2022. The number rose from 4 in 1991 to 50 in 2021. There was no increase between 2021 and 2022, and this could possibly be due to the slowdown in sectors including education.

Figure 2: Establishment of universities in Uganda

Source: Based on data from University Images (2022)

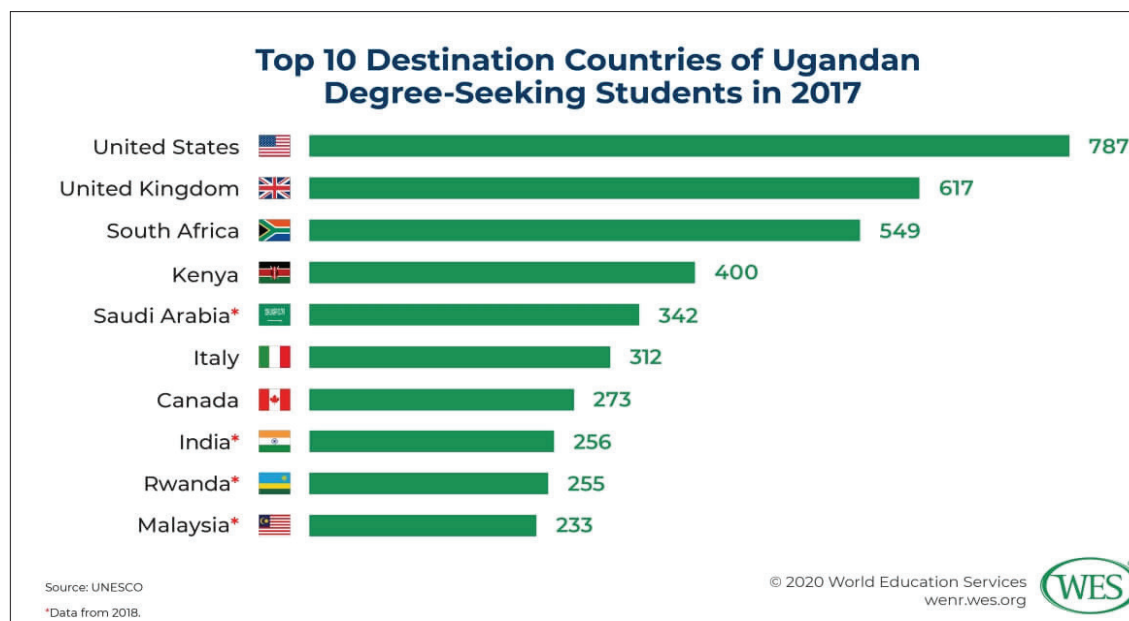
The rise in the number of universities over the years has also led to an increase in the number of foreign students in Uganda although the actual figures seem to be scattered across the different universities (Hassan & Macha, 2020). For instance, Makerere University, the biggest and oldest public university, had 6,689 cross-border students, with 2,217 students having enrolled in 2009, 2,553 in 2010 and 1919 in 2011. KIU, a private university, enrolled 3,061 students in 2005, 6,715 in 2006 and 13,000 in 2010 (Ssempebwa et al., 2011). These enrollees came from countries such as Kenya, Burundi, DRC, Eritrea, Rwanda, Somalia, South Sudan, and Tanzania. According to Kessio & Mureithi (2014) in the early 2010s there were more than 25,000 Kenyan students in universities and secondary schools in Uganda, with KIU having attracted most of the university-attending students. In general, according to NCHE as cited by Businge (2020), the enrolment in universities in Uganda rose from 162,299 to 183,084 for the period 2016/17 to 2017/18, which corresponded to an 11.4% increase. Of the total figure, 74,988 (41%) were from public universities. For the period 2018/19 to 2019/2020, the enrolment in public universities alone increased by 17% from 90,359 to 105,988.

As a country, Uganda has witnessed a high inbound mobility of foreign students, academics and scholars, mainly from Kenya, South Sudan, Rwanda, Tanzania, and Burundi (member states of the EAC), and some from abroad. This has been credited to its diversity, political stability and, according to Hassan and Macha (2020), “the relatively low tuition fees, diversity of academic programmes and quality of academic institutions together with domestic and regional educational mobility initiatives”. NCHE as quoted by Hassan and Macha (2020),

states that the number of international students skyrocketed from below 3,000 in 2004/5 to over 21,000 in 2012/13 but slightly dropped to just under 19,000 in the 2017/19 period. The high numbers are attributed more to the private than the public universities. For instance, KIU and Kampala University hosted 4,500 and 2,500 such students, respectively, in 2015/16. KIU is the best example of universities in Uganda that have been practising CBUE by setting up branches in Dar es Salaam in Tanzania and another in Nairobi, Kenya. It has also been aggressively marketing itself in all other EAC countries.

Just as the inbound CBM, the outbound has increased as the number of university-going students in Uganda has increased. This is in line with the assertion by Banadda et al. (2016) that it has become one of the options for university education in countries with inadequate education opportunities such as Uganda to have its citizens study at a university abroad. The statistics of the outbound CBM for Uganda are also scattered across different sources but, in general, it has been more pronounced with international universities in the United States, China and various European countries (Nawangwe et al., 2021). Figure 3 shows the statistics as of 2017.

Figure 3: The top ten destination countries for Uganda's CBHE



Source: World Education Services (2020)

Hassan and Macha (2020) asserts that, much as Uganda has a very large youth population (about 3.4 million as in 2014), it is not a major source of international students for foreign universities. For instance, in 2017, according to the UNESCO Institute of Statistics, fewer than 6,000 of them were attending universities abroad. Further, the numbers have not been increasing exponentially as expected, a case in point being the increase between 2011 and

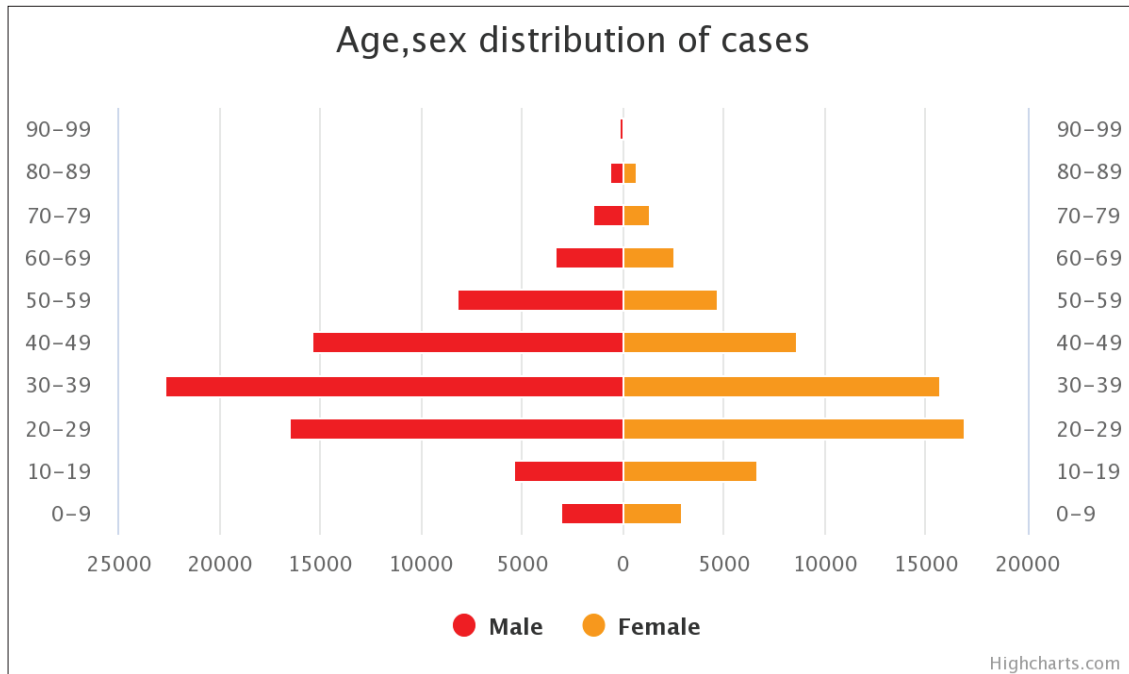
2017, which was just about 500 (Hassan & Macha, 2020). Considering that this study relied on secondary data, it was not possible to establish the current (2022/2023) CBUE statistics, but the figures must have dropped in the light of the movement restrictions associated with the COVID-19 pandemic.

Effects of COVID-19 on university education in Uganda

While the university education sector experienced disruptions in its academic calendar, a high dropout rate for students and low enrolment of new ones were reported from across the borders. The financial challenges experienced at the universities as the pandemic increased the operational costs through the mandatory adherence to COVID-19 SOPs and the demand for online teaching and learning, coupled with low student enrolment and retention, greatly affected a number of universities. The challenges of financing were echoed by the World Bank (2020) in its report on the impact of the pandemic on education financing. Literature has it that many international students at various levels left Uganda during the COVID-19 lockdowns, which was partly blamed on the prolonged closure of academic institutions in Uganda while those in Kenya, Tanzania, South Sudan and Rwanda had resumed normal lessons.

The CBM of students definitely worsened during the pandemic, considering that Uganda lost two academic years during the lockdown period, which resulted in the simultaneous existence of multiple cohorts (2020 and 2021) in the universities. The country also lost heavily under the four modes of education trade which, according to Lane et al., (2015) include supply, consumption, commercial presence and the presence of natural persons. Under this, (i) cross-border supply can be deemed as having fewer Ugandan students enrolled for academic programmes abroad; (ii) consumption, as having fewer abroad students enrolled in Ugandan universities; (iii) commercial presence, in terms of international branch campuses or study abroad locations; and (iv) presence of natural persons, in terms of faculty members travelling overseas to teach.

Data from the COVID-19 Response Info Hub (2022) shows that, of the Ugandans who contracted the disease, the majority fell within the age range of 20–49 years. The distribution as per age and sex of the infected is as shown in Figure 4.

Figure 4: COVID-19 infections disaggregated by gender

Source: COVID-19 Response Info Hub (MoH, 2022)

The age distribution is a critical factor, considering that most university-going students in general are normally in their late teens to mid-30s while the lecturers are in their 30s to 60s. Apparently, Figure 4 shows that the most affected people were those aged from around 20 years old to 49 years, and this more or less mirrors the age range of the bulk of the university population.

The catalytic role of COVID-19 pandemic on the CBHE paradigm shift

Forced by the COVID-19 lockdowns and the suspension of face-to-face teaching in all academic institutions, many universities started adopting online communication platforms to facilitate their teaching and learning (Tumwesige, 2020). Among those used were WhatsApp, Skype, learning management systems (LMS), videoconferencing, Google Classroom, Google Meet and Zoom groups (Madinah, 2020). Thus, for lecturers to remain relevant in universities, they had to become tech-savvy, as the “new normal” arrangement required that they incorporate technological aids in their classrooms, documentation and communication (Priti, 2019). This is seen as a positive consequence of the pandemic-instigated lockdown as the technological wave had been underway anyway even before the pandemic struck.

According to a World Bank and Knowledge Consulting (2021) report, digital technologies are critical for universities in that they help address problems such as the “growing demand for higher education, falling quality, the mismatch between education and employability and disconnection between research and development challenges”. The report

further indicates that, much as many universities in Uganda opted for ICT to mitigate the COVID-19-pandemic induced academic disruptions, there was a critical gap in the adoption of digital technologies and access to quality broadband, which affected the teaching and learning. The report identifies the following challenges that the country had to grapple with:

- (i) lack of an ICT policy on digital literacy and e-learning; (ii) low digital literacy among lecturers and students; (iii) lack of knowledge and capacity on how to leverage ICT to improve teaching and learning; (iv) very limited investment in campus ICT resources and infrastructure; (v) lack of mechanisms to evaluate and identify relevant and /or appropriate digital content and applications for different levels and programmes of education; (vi) lack of an adequate pool of high-level ICT champions within higher education that can promote the adoption and use of ICTs within their institutions.

The pandemic can be considered to have been a “blessing in disguise” in the sense that it brought to the fore the technological gaps that exist in Uganda’s university education sector. As had been pointed by Farell (2007) way before the pandemic, for the internet to become a national option for extending education and learning, a number of barriers had to be overcome. These included inadequate ICT infrastructure; high costs of access; unreliable and poor quality of internet connections and electricity services; weak policy regimes; inaccessibility to appropriate software and course-delivery platforms; shortage of skilled personnel to manage the resources and maintain new delivery modes; a technology-illiterate user group; limited bandwidth; and lack of access to online scholarly material. This is supported by Tumwesige (2020), who indicates that the National IT Survey of 2017/2018 established that only 5.9% households in Uganda had access to a computer at home, 10.8% owned a household telephone, and 10.8% of all households had at least one member who had internet access. Access to smartphones, laptops, desktops and other IT gadgets was established to be very low (Uganda Communications Commission [UCC], 2019).

A study by Uzorka and Makeri (2020) on the challenges facing university students during the pandemic established what they termed as the “seven academic challenges” and these included (i) lack of e-learning facilities; (ii) financial constraints; (iii) lack of a conducive environment; (iv) a negative lecturer attitude; (v) the need to learn new skills; (vi) lack of interest in studies; and (vii) stress and anxiety. They recommended that the universities should respond to the “new and evolving strategy” that requires making education accessible anytime and anywhere, and affordable, by mitigating the effects of any gaps created by the pandemic. Similarly, a study by Biira et al. (2021) in Busitema University that served as a case study of higher education institutions (HEIs) in Uganda established that there was a knowledge gap in handling online courses.

Prior to the COVID-19 pandemic, in August 2019, NCHE had developed what it termed the “Minimum Standards for Open Distance And E- Learning Programmes (ODEL)” (NCHE, 2019). During the lockdown, NCHE authorised universities to adopt the ODeL platform for teaching and not for examining students. Currently, many of the universities in Uganda have functional such platforms and, in some cases, they have adopted an online face-to-face hybrid

system of teaching and learning. As much as ODeL allows for posting of teaching materials online and assessing students, and therefore offers opportunities for FTA and FLA, NCHE advised against its use in examinations until more guiding online examination policies and guidelines are put in place.

Nawangwe et al. (2021) opines that, while in general most universities were already gravitating towards online programmes even before the pandemic, the need to do so was hastened by the pandemic. For instance, at least 40% of the undergraduate academic programmes at Makerere University were already online on the Makerere University e-Learning Environment (MUELE) (MAK, 2020). They further captured very well the evidence of the emerging paradigm shift by stating that “[t]here is a feeling that the future Ugandan universities might be more skewed to technology in education as opposed to mere educational technology” and that:

COVID-19 has demystified conventional university face-to-face pedagogy for all Ugandan universities hence calling for a blended pedagogy that will include problem-based learning (PBL) – a learner-centered pedagogy. This blended pedagogy should include the use of mini face-to-face sessions, adoption of non-conventional teaching and learning approaches such as the use of mobile phones and other Digital Education tools for teachers and students such as: the Edmodo which is an educational tool that is used to create a social network of students and teachers. It may also involve use of TEDEd which is an educational platform that allows creating educational lessons with the collaboration of teachers, and students. As an educational tool, “Animoto” which is a digital tool that is used to create high-quality teaching and learning videos can be used.

As far as tech savviness is concerned, Nawangwe et al. (2021) established that staff at various universities admitted that during the COVID-19 lockdown, they learnt how to adapt to e-pedagogy through their smartphones. Similarly, Madinah (2020) asserts that during the COVID-19 pandemic, universities faced “unplanned, unwanted, unexperienced, tense test in online learning” and this challenge affected both learners and lecturers. As a remedy, they all had to embrace the “new normal” and grapple with the associated challenges. As it is, many universities in Uganda now have operational ODeL online teaching and learning platforms and some of them have continued to use these platforms even after the lockdown.

Conclusions

The conclusions of this study are presented below:

In general, there is scattered literature on both inbound and outbound cross-border mobility (CBM) and this implies that the CBUE in Uganda is not extensive enough. While universities such as Makerere and KIU have registered a diverse foreign student enrolment, most of the other universities have only a few foreign students from countries which border the districts housing these universities. For instance, Gulu University has students from South Sudan, Muni University from South Sudan and DRC, and Busitema University from Kenya.

A number of studies indicate that the COVID-19 pandemic has affected CBUE in Uganda, and has heightened the uptake and adoption of e-learning by universities. Further, Uganda's outbound CBUE can greatly benefit from the new university education paradigm going by its large young population, 78% of whom are 30 years old and younger (Hassan & Macha, 2020), as this offers a demographic dividend. The fear, though, is that this also presents a possible "demographic time bomb", as some authors have described, because economic growth and the capacity of the education sector do not currently match population growth. Actually, the demand for education has been soaring but the capacity to accommodate it is overstretched.

The catalytic effects of the COVID-19 pandemic on the university education paradigm shift are real and CBUE can only move on to yet another paradigm but not revert to the pre-COVID-19 pandemic era. All university education stakeholders have to embrace the new paradigm and devise strategies to exploit the benefits that come with it. The "new normal" CBUE demands virtuality in terms of cross-border mobility, student enrolment and learning; flexibility in terms of FTA, FLA and FFCC; tech-savvy academics, scholars and researchers; and LCL as it relates to student learning empowerment.

Recommendations

This study makes the following recommendations:

On the status of CBUE in Uganda, universities in Uganda should build more collaborations locally and within the EAC.

As for the effects of the COVID-19 pandemic on the university education sector in Uganda, it was recommended that all stakeholders should welcome the new paradigm, adopt it and optimise its benefits. As a start, the Government of Uganda should take the lead in adopting all necessary measures that can lead to the realisation of all the benefits that the new CBUE can offer. It should follow this by introducing policy measures that would promote, sustain and enhance Uganda's CBUE under the new paradigm while upholding mutual recognition of cross-border academic qualifications, especially within the EAC region.

As relates to the catalytic role of the COVID-19 pandemic in the CBUE paradigm shift in Uganda, the government, through the Ministry of ICT and National Guidance and all university education sector stakeholders, should expand CBUE access and popularise it by making it affordable through ICT. The university education sector should adopt an integrated CBUE system which allows for the recognition of curricula across borders as well as for credit transfers that enable learners to flexibly progress academically within and among national and regional institutions. With CBUE made easy through virtual/online learning, programme harmonisation at regional and international levels for easier accreditation through inter-university associations such as the Inter-University Council for East Africa (IUCEA) should be effected.

Considering the multi-sectorial collaboration needed to effect the new CBUE paradigm, a "triple helix" approach that will bring together the government, the HE sector and the technology industry needs to be adopted (Mshilla, 2021) whereby the government will provide

an enabling environment for virtual CBHE, the HE sector will design academic programmes and curricula in line with the paradigm, and the industry shall come up with technology that can help effect the virtual CBHE.

The government should also come up with subsidy programmes that can improve the uptake of ICT in teaching and learning by making it available, affordable, accessible and usable. This can be coupled with an increase in the HE budget to allow for more investment in virtual teaching and learning under the new CBHE paradigm.

Implications/Relevance of the Study

The following are possible implications of the pandemic-instigated HE paradigm shift.

First, new definitions and terminology will emerge in the HE sector. For instance, we already have “hybrid programmes” that incorporate both face-to-face and online teaching, considering that technical courses cannot go fully online. Correspondingly, teaching may involve short-term residences or split semesters.

There is also going to emerge a new ‘breed’ of tech-savvy academics/scholars who, unlike their traditional counterparts, will be more of facilitators, coaches and mentors as the students take centre stage under the LCL paradigm.

With limited physical/face-to-face interactions between academics and the learners as more programmes go online, academic programmes need to be redesigned to have greater internship and industrial attachment components to bridge the gap.

Finally, computer modelling and practical teaching studios similar to TV studios may take the place of classrooms and laboratories for practical courses that cannot purely be taught theoretically.

Study Limitations

This study was limited only to secondary data as obtained from e-sources and websites and so it lacked input from primary data which may otherwise have further strengthened the discussion. The fact that the study did not look at any literature on higher education in Uganda implies that the findings were rather general and could not specifically reflect the situation in any one higher institution of learning. Apparently, many universities do not report on the statistics of foreign students in their websites and so it was not possible to report on the same. It was also noted that a number of the universities did not update their websites regularly and so current data on the period 2020 to the time this study was conducted was inadequate.

Areas for Further Research

Considering that this study was conducted just in the wake of the COVID-19 and that it was a desk review, there is need to pursue this line of study by conducting empirical research focusing on the universities in Uganda that are engaging in CBUE. The exact magnitude of the impact of the pandemic and the actual manifestations of the new CBUE paradigm should be explored.

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