Chapter 13

Exploring the Use of Open and Distance Learning for Socio-Economic Development in Sub-Saharan Africa

Gbolagade Adekanmbi

ORCID ID: https://orcid.org/0000-0002-3858-5994

Chabuya Kadisa

ORCID ID: https://orcid.org/0000-0002-4239-4162

Thaddeus Mahoso

ORCID ID: https://orcid.org/0000-0002-1104-9569

Bolupe Awe

ORCID ID: https://orcid.org/0000-0001-6379-7457

Abstract

This chapter explored the use of open and distance learning (ODL) for socioeconomic development in sub-Saharan Africa, involving Nigeria, Kenya, Rwanda and South Africa. The chapter also examined the growth of ODL in these countries and its increasing recognition as a parallel educational route to address the problem of unsatisfied educational demands. It identified various attempts at technological preparedness, and the need to grow the number of students using ODL. While noting the bright prospects of ODL in sub-Saharan Africa, existing ODL institutions are constrained by gross underfunding, lack of ICT infrastructure which is an essential component of ODL as well as inadequate personnel for ODL programmes. Based on the observed limitations of these ODL institutions it was recommended that ODL institutions must be adequately funded because they are capital intensive; more dedicated ODL institutions should be established; existing ODL policies must be under constant review; while closer collaboration must be established with the Commonwealth of Learning and other donor agencies supportive of ODL. It also advocated further investment in ODL work, and a mentoring role by ODL institutions for the conventional institutions.

Keywords: Open and distance learning, sub-Saharan Africa, socio-economic development, open educational resources, information and communication technologies, COVID 19.

1 Introduction

Although education is seen to contribute to the cultivation of habits and the promotion of culture and norms, it has no doubt been a catalyst for socioeconomic development globally (World Bank 2018). In the same breadth, the use of open and distance learning for promoting socio-economic development has been discussed in the literature (Zawacki-Richter & Qayyum 2019; Adekanmbi 2021; Jegede 2016)). ODL use has been a factor in the increase in higher tertiary gross enrolment ratios, the promotion of digitisation of learning across the globe, and the transformation of conventional educational practices and institutions (Zawacki-Richter & Qayyum 2019). ODL is a vehicle for socioeconomic development because of its ability to alleviate human resources and economic constraints, build capacity, address teacher education problems, and in view of its spin-off effects on other parts of the economy (Jegede 2016). In response to the COVID 19 pandemic, ODL became the alternative educational route. In a 385-page publication by OECD and The World Bank, edited by Vincent-Lancrin, Romaní and Reimers (2022), the stories of resilience, adaptation, leadership and innovation are seen in the way ODL was used to mitigate the effects of the pandemic, thus contributing significantly to socioeconomic development at a time of great need. This pattern of contribution through ODL has been replicated by other organisations and institutions worldwide.

Undoubtedly, ODL capacity to play a key role in providing access to education resonates greatly with Africa. With a population of over 1.1 billion in sub–Saharan Africa, half of which is expected to be less than 25 years old by 2050 (World Bank 2022a), ODL use becomes imperative. Predictions for 2023

and 2024 show that the economy in the sub-continent will grow by 3.9% in 2023 and 4.2% in 2024 (World Bank 2022a). Even then, the sub-continent still has a lot to do to catch up with the developed countries in view of the fact that '27% of all illiterate adults lived in sub-Saharan Africa in 2017' (UIS 2017). Also, considering that one-fifth of the world youth population lived in Africa in 2012 and that they are projected to form one third of the world population by 2050 (African Development Bank 2015, utilising ODL to pursue economic development through education is paramount.

This chapter explores the role of ODL in addressing socio-economic development in sub-Saharan Africa through the lenses of four countries. It focuses on the contexts of the countries, the status of ODL in the countries, the impact of ODL and what its future entails. With the effects of COVID 19 pandemic in many countries on the sub-continent, flexible learning pathways are constantly being sought, and examining the extent to which ODL has impacted socio-economic development becomes vital. In addition, the study highlights some trends in Nigeria, Kenya, Rwanda and South Africa. Nigeria and South Africa are major economic hubs in Africa while Kenya and Rwanda are places where ICT growth is being explored for socio-economic development. The term 'open and distance learning' is used interchangeably with 'distance education' to mean the same thing in the chapter

2 Nigeria

2.1 The Context

Nigeria's estimated population for 2022 is 225, 082, 083, with a projection of 392 million by 2050, thus making the country the 4th largest in the world by 2050 (Central Intelligence Agency [CIA] 2022). The country's literacy level is at 62% for those 15 years and above, youth unemployment is at 18.3%, and a gross domestic product per capita of US\$ 4900 (based on 2020 estimates) is recorded. On the human development scale, Nigeria is ranked number 161 out of 189 countries globally, with a low development status, and is in the same company as Rwanda, Tanzania, Senegal and Lesotho (UNDP 2020). Life expectancy at birth in 2019 was 54.7 years; expected years of schooling for the population was 10 years in 2019, inequality in education within the same period stood at 40.4% while the rural population with access to electricity was 31.0% (UNDP 2020). The gross enrolment ratio for Nigeria in 2018 was 12% at the tertiary level, 40% for secondary education and 87% for primary education

(World Bank 2022b 2022c & 2022d). In 2016, Nigeria had a total of 143 universities with 695, 449 students enrolled (Jegede 2016). However, the number of universities at federal, state and private levels has now grown to 217 (National Universities Commission 2022). On the state of information and communication technology (ICT), in 2018, Nigeria's households with internet access were 17.8%, those with a computer were 27.7% and mobile phone usage for every hundred people was 75.9% of the population (International Telecommunications Union (ITU) (2018).

While over the years student numbers at all levels have grown, a clear gap still remains in general student participation in higher education. For example, Ojerinde (2011) notes that out of the 1,185,579 candidates that sat for the Joint Admissions and Matriculation Board (JAMB) examinations in 2009. only 211,991 candidates were admitted, reflecting only 17.9 percent of the applicants. JAMB, which was established in 1978, exists to conduct examinations for all tertiary institution applicants in Nigeria. It was noted that onefifth of those who applied were admitted. Similarly, Adesulu (2014) observes that in 2010/2011, Nigeria had 112 universities with a capacity of 450,000 against 1,493,611 applicants. Thus, the admission capacity in all Nigerian universities was 30.13 per cent of the total applicants. JAMB also reports that from 2010 to 2016 out of a total of 11,703,709 applications received; only 2,674,485 students were admitted in the thirty-six states of the federation, and the federal capital. It is notable that Odia and Odia (2017) report that the percentage of those admitted into universities in Nigeria against those who applied in various years in 2010 was 25.12% in 2011, 27.6% in 2012, 23.3% in 2013, and 24.6% in 2014, respectively. In 2018/2019 academic session, out of the over 1,662 762 candidates who wrote the admission examination, 585, 498 were admitted while in the 2019/2020 session, out of the 1, 157, 977 who wrote, 612, 557 were admitted (Ogunode, Akinjobi & Olatunde-Aiyedun 2022). The implication is that ODL is needed to address the shortcomings.

2.2 Status of ODL

The story of the development of ODL in Nigeria is similar to that of many sub-Saharan African countries, where it has come through the use of foreign examinations, activities of foreign correspondence colleges, the work of protagonists in the form of educational entrepreneurs who set up local correspondence colleges, and the direct and indirect participation of governments and univer-

sities. Foremost among the university forerunners are the Ahmadu Bello University, the University of Lagos and the University of Ibadan. Also, the National Teachers' Institute in Kaduna has further promoted teacher education and training.

While commenting on the emergence of open and distance learning in sub-Saharan Africa, Adekanmbi (2021) notes that the:

... emergence, growth and development of open and distance learning in sub-Saharan Africa has been traced to the era of foreign correspondence colleges and foreign examinations, the growth of local ODL entrepreneurs, the involvement of governments and universities, and the gradual development, growth and utilization of technology For many sub-Saharan African countries, dwindling resources, the quest for partnerships, including those tied to franchises, have promoted ODL development and subsequently, opened up room for the emergence of open universities and MOOCs, and the exploration of open educational resources (OER) possibilities. In the process, a gradual merger of conventional offerings and ODL culture is being seen, a situation made bigger by COVID-19, which has led many into ODL 'in a hurry' (Adekanmbi 2021: 166).

Notably, the starting of the Universal Primary Education in 1976 highlighted the gap in teacher education provision (Olakulehin 2008) and was in part responsible for the establishment of the National Teachers Institute (NTI) to upgrade teachers. Also, the National Policy on Education (Federal Republic of Nigeria 2004) noted the following as major goals that ODL must achieve:

- Provide access to quality education and equity in educational opportunities for those who otherwise would have been denied.
- Meet special needs of employers by mounting special certificate courses for their employees at their workplace.
- Encourage internationalization especially the tertiary education curricula.
- Ameliorate the effect of internal and external brain drain in tertiary institutions by utilizing experts as teachers regardless of their locations or places of work (Federal Republic of Nigeria 2004: 5).

Currently, fourteen open and distance learning higher education institutions exist in the country, as dual mode institutions and are referred to by the National Universities Commission as Distance Learning Centres (NUC 2022). The National Open University is the only dedicated ODL institution in the country. Although ODL had been used in Nigeria mostly for teaching related qualifications, a new thrust in its use for a range of other programmes has been seen (Adekanmbi 2021). Beyond commerce and teaching-related subjects that marked ODL beginnings in correspondence education, other areas including science, law, agriculture and social sciences have become part of the programmes now on offer. The National Universities Commission monitors the quality of provision through accreditation and guidelines.

Ayodele, Araromi, Emeke, and Adegbile (2006) lament the low utilisation of ODL in Nigeria, noting that when compared with other developed countries, the intake in Nigeria is low. They observed that the University of Ibadan Distance Learning Centre had less than 7,000 students during its early years whereas in the United Kingdom, 24,000 students were registered in the opening year. The same lamentation was given about the National Open University of Nigeria had over ninety programmes on offer and as many as 272, 384 students enrolled (Commonwealth of Learning [COL] (2019). In 2018, the university graduated 14, 769 students (National Open University of Nigeria 2018).

Underfunding of higher education institutions in Nigeria has also been a major issue. Although UNESCO recommends the allocation of 26% to the overall annual education budget, Nigeria has only, between 2009 and 2018, spent between 4.83% allocation (2010) to 9.94% (Gambo & Fasanmi 2019). To some degree, this also affects the development of ODL, in terms of direct subvention to the dedicated institution and the distance learning arms of the dual mode ones.

2.3 The Impact

The impact of ODL in Nigeria is observable in a variety of ways. The Federal Government of Nigeria enacted relevant policies, starting with the Educational Correspondence Colleges (Registration, etc.) Decree Number 11 of 1977, the Educational Correspondence Colleges Accreditation Decree Number 32 of 1987; the National Policy on Education (1977; 1981; 1998; 2004), the 2002 Blueprint and Implementation Plan for the National Open & Distance Learning

Programmes, and the policies and guidelines aimed at quality developed by the National Universities Commission. A number of universities have set up Distance Learning Centres (DLCs) to enhance focus and promote quality, away from the core conventional settings and contexts. The National Open University of Nigeria (NOUN) has put under its aegis the National Teacher's Institute to help promote quality. Through the National Open University's Regional Training and Research Institute for Distance and Open Learning (RETRIDOL), workshops have been organised for other distance learning providers or aspiring institutions in Nigeria and the region. Recently RETRIDOL started a monthly ODL Discourse for scholars, similar to the one organised by the Southern African Development Community's Centre for Distance Education, from the Botswana Open University.

The emergence of the National Open University of Nigeria in 2002 has helped to increase enrolment figures at ODL exponentially. As far back as 2018, NOUN had 14,769 graduates with over ninety programmes. With only 28% of applicants to Nigerian higher education institutions in 2010-2016, it is clear that the 70% that could not be admitted would rely on ODL. Also, according to the Commonwealth of Learning (COL), in 2016, NOUN enrolled over 272, 000 students NOUN (COL 2019). Considering the number of institutions running ODL programmes in Nigeria today, with just a few participating in the seventies and the eighties, a lot has been done in this regard. A major observation in impact is thus seen in student numbers, use of technology, the establishment of new programmes, involvement in training and research especially through NOUN initiatives and the post COVID 19 experiments seen in the various schools where ODL is being utilised.

While ODL promotion in the country has been observed and is growing, there is still a high level of unsatisfied demand which ODL must address. Also, the level of mainstreaming of ODL into the conventional university system may not have been fully addressed and there are limitations observed in the use of modern technologies in promoting ODL in the country

2.4 The Future

Jegede (2016) examined the challenges and the future of ODL in Nigeria and submitted that twenty institutions of higher learning, mostly universities, are working on exploring the use of the ODL route so that those with a measure of success can serve as mentors to up and coming ones. This practice is similar to

the leadership roles of Botswana Open University in Botswana and the University of South Africa (UNISA). Related to this, a merger of conventional and ODL practices is seen, coupled with the expected post COVID 19 development and the utilisation of technology for teaching and learning. Jegede (2016) also notes the possible growth of the open schooling initiative where schools and technical colleges embrace the open education philosophy. Perhaps it may be added that enhancing partnership and collaboration, especially with the Commonwealth of Learning will be a constant path of growth for ODL providers in the country. To this end, COL's partnership in Nigeria (COL 2022) with agencies such as the Federal Ministry of Education, National Open University of Nigeria, National Teachers Institute, Kaduna, National Universities Commission and the Regional Training and Research Institute for Distance and Open Learning, ODL will continue to grow. The growth of Open Educational Resources (OER) should also be part of this future trajectory. The National Universities Commission's development of a National Policy on OER for Higher Education, concluded by September 2017, further underscores this. On the attraction of more students, ODL institutions may need to broaden their curriculum, create opportunities for flexible payment plans, use user-friendly technology and engage in marketing strategies that can bring the students in. The pursuit of open schooling as a part of the ODL plan may also help.

3 Kenya

3.1 The Context

Kenya has a population of 55, 864, 655 people (CIA 2022), while the World Bank (2020) put Kenya's literacy rate in 2018 at 82%. The gross enrolment ratio for tertiary education was 10% in 2019, 57% for secondary schooling in 2009 and 103% for primary education in 2016 (World Bank 2022b 2022c & 2022d). The Human Development Report (UNDP 2020) puts Kenya's expected years of schooling at 11.3%, HDI ranking at 143 and the Gross National Income per capita at 4, 244 US dollars (UNDP 2020). The life expectancy is put at 66.7, inequality in education at 22.9% and population with at least some secondary education at 29.8% and 37.3% for female and male respectively, for those 25 years and older (UNDP 2020). Although the figures for schools with access to the Internet in the nation between 2010 and 2019 are not available, the rural population with access to electricity was 71.7% in 2018 (UNDP 2020). On technology, 86.1% of the population had a mobile phone in 2018, while internet

users were 17% of the population; households with internet were 33.7% while households with a computer stood at 7.2% (ITU 2018).

3.2 Status of ODL

Open and distance learning (ODL) is provided in Kenya by a variety of agencies, and its beginnings have been attributed to the work of the Ominde Commission Report of 1964/65 and the Gachathi Commission Report of 1976, also known as the National Commission on Educational Objectives and Policies (NCEOP) (Republic of Kenya 1966; Kitainge 2004). Similarly, the Mackay Report of 1981 as well as the Sessional Paper Number 1 of 2005 were in favour of the provisions of ODL in the country (Anyona 2009). It has been observed that the growing and increasing number of high school graduates who qualify to study in various universities cannot be admitted in conventional universities due to the inadequacy of the facilities to accommodate them (Muriki 2020). In mitigating this challenge, ODL is offered in the country by private and public universities (Nyerere 2016). According to Matara (2020), about eleven universities are currently providing ODL in Kenya.

It would appear that people in Kenya are now less sceptical about the quality of education offered through ODL, as there is no national quality assurance mechanism in ODL in Kenya (Nyerere 2020). Consequently, each institution has its own way of assuring quality for each programme they offer. While there is a lack of a national policy of assuring quality in ODL, the government of Kenya Vision 2030 compels all universities in Kenya to offer ODL to enhance accessibility to higher education by everyone in Kenya (Nyerere 2020).

While the submission by Nyerere (2016) is aimed at ensuring quality across the distance education landscape in the country, it is important to note the work of the Commission for University Education (CUE), which was established under the Universities Act No 42 of 2012 and is serving as the successor to the former Commission for Higher Education. The role of this Commission in regulating and promoting quality is seen in the context of the expansion of the higher education sector and the need to promote quality education. As a result, guidelines and standards are established by the Commission, which must be followed and adhered to by universities or colleges affiliating with others to provide education in the country, including those providing distance education from abroad. Table 1 provides an example of such

affiliations and related accreditation of university programmes with the identification of foreign universities, their local counterparts, the programmes accredited and the dates of authorisation for such.

Table 1: Foreign universities with a grant of Authority to collaborate in offering academic programmes in Kenya

Foreign	Local institution	Programme	Date of grant
university		offered under	of Authority to
3		collaboration	collaborate
California	The East Africa	Master of	19 th October
Miramar	University,	Business	2015
University, USA	Kitengela,	Administration	
	Kenya	(MBA)	
		Doctor of	
		Business	
		Administration	
		(DBA)	
University of	Edulink	Bachelor of	14 th April 2016
Northampton,	International	Business	•
United Kingdom	College,	Administration	
(UK)	Nairobi, Kenya	(BBA)	
	·		
University of	Oshwal	Bachelor of	18 th October
Greenwich,	College,	Science (Hons)	2018
United Kingdom	Nairobi, Kenya	Computing`	
(UK)			
University of	Oshwal	Bachelor of Arts	21st November
Hertfordshire	College,	(Hons) Business	2019
United Kingdom	Nairobi, Kenya	Administration	
(UK)			
Beulah Heights	Daystar	Bachelor of Arts	27 th January
University	University, Athi	(Hons) Business	2022
	River, Kenya	Administration	

Source: Commission for University Education (Kenya) (2022).

It is hoped that the ongoing work of the Commission on regulation and

accreditation at the university level will serve as a springboard to addressing the entire ODL landscape in Kenya through other dedicated ODL mechanisms.

ODL offerings by several universities in Kenya have had some challenges. While many learners enrol for ODL, the retention of students is very minimal, hence the ratio of students who graduate per cohort is low compared with the ratio of students who enrol and finally graduate in conventional settings per cohort (Waweru & Itegi 2019). Mbugua (2013) in Nyerere (2016) also point out the lack of training on the part of university personnel who are involved in the provision of ODL even though their background to the provision of education in general is very good. Nyerere (2016) also cites the critical shortage of facilities that should support the provision of ODL in Kenya. This lack is seen in the form of:

- Insufficient infrastructure to support ODL;
- Dearth of ICT equipment as well as audio visual equipment;
- Insufficient ODL study materials; and
- Lack of expertise to produce effective ODL study materials.

The current lack of infrastructure to support e-learning is most common among universities that are not situated in urban areas, and equity in the provision of ODL in Kenya is somehow lacking. Institutions outside urban areas are affected by poor internet connectivity (Tarus, Gichoya & Muumbo 2015).

3.3 The Impact

Despite the existence of numerous challenges confronting various institutions in their desire to offer quality ODL, this mode of education is yielding positive impact in Kenya. Due to ODL, university enrolments have been boosted (Nyerere 2016). This implies that more people are accessing university education more than before. The development of skilled workforce will improve learning without incurring great cost since ODL consumes less resources than conventional learning. Conventional learning often requires more facilities like lecture rooms, sanitary facilities, and physical libraries. With ODL, learners can pursue studies in the comfort of their homes and at their own pace while the most needed facilities can also be made available online (Matara 2020).

ODL in Kenya is enabling people who are employed to have access to

higher education. This also includes those who failed to access higher education due to factors beyond their control (Matara 2020). Even those who could not further their education through the conventional system due to work related factors now have the opportunity, since ODL gives learners the opportunity to study when they are free (Matara 2020). Some universities that offer ODL like the African Nazarene University allow learners to pay fees in monthly instalments.

Enrolment of ODL learners by Kenyan universities promotes professsional development of employees' skills, leading to a more productive workforce. In addition, employed teachers and university lecturers can further their education and enhance their effectiveness.

3.4 The Future

The need for the government to formulate an ODL policy to facilitate adequate funding of ODL in Kenyan universities is imperative. This will assist the universities in procuring necessary resources to enhance quality. As already discussed, the work of the Commission on university education is clearly noted. However, the country still needs to develop a comprehensive ODL policy which specifically addresses ODL work, programming, and course development and human resource issues.

Another critical aspect of ODL improvement is internet connectivity for learners to access ODL resources from university portals. In addition, there is the need to strengthen the support services for distance learners and minimise dropouts and deferment of admission by learners. These strategies could improve learners' performance and increase the completion rates. The production of effective ODL study materials that are simple and conversational is vital, so that learners do not feel the absence of tutors. This may require employment of experts in instructional materials production and training of existing personnel in that area.

4 Rwanda

4.1 The Context

Rwanda has a population of 13, 173, 730 based on a 2022 estimate (CIA 2022). The literacy rate for the 15 years and above is 73 % while the rural population with access to electricity in Rwanda is 23.4% (UNDP 2020). The country is

ranked 160 on the Human Development Index scale (UNDP 2020), a shift by three places from 2018 when it ranked 157 out of 189 nations globally. Rwanda's GDP per capita was said to have 'more than tripled between 2000 and 2018' while it had also increased by 'more than 100% between 1990 and 2018' (Republic of Rwanda 2019: 11). Life expectancy at birth in 2019 was 69.0 years while the population with at least some secondary education, between 2015 and 2019 was 10.9 years for female and 15.8 years for male. However, the expected years of schooling for the population was 11.2 years in 2019, inequality in education within the same period stood at 29.3% while the rural population with access to electricity in 2018 was 23.4.0% (UNDP 2020). The gross enrolment ratio for Rwanda in 2019 was 6% at the tertiary level, 44% at the secondary level and 13% at the primary level (World Bank 2022b 2022c & 2022d). On technology, 72.2% of the people had mobile phones in 2018, 21.8% used the internet; 9.3% of the households had internet access and 2.5% of households had a computer (ITU 2018).

4.2 Status of ODL

Mukama (2016) has traced the origin of ODL in Rwanda to the initial teacher training initiative to upgrade secondary teachers, reduce teacher shortage and enhance teacher quality, and was funded by the UK Department for International Development (DFID) in 2001. The programme was later taken over fully by the Kigali Institute of Education. Following the merger of the public higher education institutions, it became the University of Rwanda Kigali College Of Education (UR-CE). In addition, three major departments, Tele-Education, Blended Learning and the Centre of African Virtual University ran the distance education programmes. Between 2012 and 2016, the Distance Training Programme enrolled 6059 students in its six diploma programmes; Tele-Education, supported by five Indian universities, enrolled 1069 students; Blended Learning which organises programmes for five Schools of nursing and Midwifery enrolled 2542 students.

In addition to these, UNESCO and the Commonwealth of Learning (COL) have been involved in the ODL activities in the country. In a post by Ivanov (2022), it is reported that the University of Rwanda has integrated the publication by UNESCO titled 'Ensuring effective distance learning during COVID 19 disruption: guidance for teachers' within its curriculum offerings. This has resulted in over 3700 teachers being impacted on the use of information

technology skills. The support of UNESCO and COL is expected to benefit more teachers in the country.

Overall, the running of distance education in the country is the combined work of several agencies including the Ministry of Education, Rwanda Education Board, Workforce Development Authority, University of Rwanda and other higher institutions, the Ministry of Youth, Rwanda Development Board and the Ministry of Health.

4.3 The Impact

One of the ways ODL has impacted Rwandan educational and developmental landscape has been through the enactment of policies, with many of such focused on information and communication technology (ICT). All these indicate the extent to which the nation wants to utilise ODL in promoting educational access. Mukama (2018), in an examination of the interplay of policy and implementation provides a list of thirteen core policies which are one way or the other related to ODL activities. Among the policies are the Vision 2020, SMART Rwanda Master Plan, ICT in Education, ICT in Education Master Plan, ODeL Policy, Code of practice for ODeL Provision, Task Force Report on Open University, Working Group Report on ODL, and others. Notably the Rwandan Higher Education Council has established Standards and Guidelines for Open and Distance Learning (Republic of Rwanda 2014). This shows that Rwanda is committed to ODL promotion. The plan by Government in its 2010-2017 strategic plan is to ensure that 30% of secondary school subjects and 50% of higher education programmes are taught at a distance (Mukama 2018). This highlights the importance and recognition given to ODL as a tool for enhancing access.

While the above highlights impact, there are challenges observed in ODL work in Rwanda. Some of these are related to the need for a specific policy, not existing yet, that addresses the accreditation of e-learning programmes (Sangwa, Manirakiza & Mutabazi 2020). On the other hand, while exploring the challenges faced in the context of promoting nursing education through ODL, Murebwayire, Biroli and Ewing (2015) have noted that the learning management system is often unstable, internet connectivity is inconsistent, there are language difficulties, and the levels of technology literacy of students vary, among others. Furthermore, based on some other studies on Rwanda, there is a still a lot of negative perception by learners about ODL i.e.

there is limited access, internet costs are high, content is often unattractive and the learners' information technology skills are inadequate (Sangwa, Manirakiza & Mutabizi 2020).

4.4 The Future

The core component of what should constitute a sustainable ODL in Rwanda and the need to create a dedicated ODL institution have been highlighted. The establishment of a Centre for Open and Distance Learning at the UR-CE should portend greater things for the future. Related to this is the recommendation for building ODL capacity for promoting the MOOCs and OER as well as provision of access (Mukama 2018). In a submission by Nkuyubwatsi (2016) in which the writer critiqued the ODL policy environment in opening up public higher education in Rwanda, part of the future would include having a re-look at the various policies enabling ODL at the University of Rwanda. One goal would be that of 'assessment of open learning for credit, open educational services and other open educational practices (OEP) as well as the use of openly licenced learning resources and open courses' (Nkuyubwatsi 2016: 54). Similarly, and in line with the author's submission, a clear recognition of the contribution of academics in various aspects of ODL promotion and the provision of requisite rewards availed for such, especially in matters related to OER and OEP would be required. Furthermore, just as the collaboration between the University of Rwanda, the Government of Rwanda and the Commonwealth of Learning (COL) has enhanced the policy environment of ODL, allowed for baseline surveys and the development of learner support, further interventions should be geared towards benefitting other sectors, including ODL providers in the private sector as well as other non-state actors.

5 South Africa

5.1 The Context

South Africa has a population of 57, 516, 665 people, based on an estimate (CIA 2022). The literacy level in 2019, according to the World Bank (2020) is 95% while the expected year of schooling is put at 12.8%. The country is ranked 114 on the human development scale and its Gross National Income per capita in 2017 was 12, 129 US dollars. Life expectancy is 64.1 years and inequality in education is put at 17.3% (UNDP 2020). On the population with at least some

secondary education, who are 25 years and older, it was seventy-five for females and 78.2 for males. The rural population with access to electricity was 89.6 in 2018 (UNDP 2020). On Information and Communications Technology, in 2018, South Africans had 162 mobile phones for every one hundred people, the percentage of those with Internet access was 60.7% while the percentage of households with a computer was 21.9% (ITU 2018). The statistics portend an immense potential for supporting ODL activities.

5.2 Status of ODL

The beginning of ODL in South Africa has been seen to be synonymous with the evolution of the University of South Africa (UNISA), the dedicated ODL institution in the country (Prinsloo 2019). This relates to UNISA's early work as an examining body, its transition to a correspondence education institution and the observed activities of various providers who later teamed up to provide a common front in ODL provisions. To this end, the work of Technikon Southern Africa and that of the Vista University's Distance Education Campus (VUDEC) are notable. It is reported that UNISA, Technikon Southern Africa and VISTA later merged in 2004, having a set of clear objectives to promote educational access and serve as a dedicated ODL institution under the aegis of UNISA (Prinsloo 2019). The rationale for this has been described by Badat (2005) as the ability to meet 'national, social and educational need, and where economies of scale can be achieved, (Badat, cited in Prinsloo 2019). The later establishment of the Policy for the provision of distance education in South African universities in the context of an integrated post-school system was notable especially in acknowledging UNISA as a dedicated ODL institution in the country. It should be noted that other universities, apart from UNISA, are also providing ODL in South Africa.

The 2014 policy has in its provisions the enhancement of institutional planning across universities, pursuit of funding assignments, promotion of quality as well as transformation and innovation. It further recognises other role players in ODL apart from UNISA and enables partnership and collaboration. A major goal was to create an enabling environment for an expanded ODL system while promoting future use of ICTs for learning and teaching and the collaborative use of OER. It also has a realisation that cross-border provision of distance education needs to be monitored and regulated through relevant legal provisions (Prinsloo 2019).

5.3 The Impact

One major impact of ODL in South Africa has been in the establishment of relevant policies in the promotion of ODL. Starting with the Correspondence Education Act of 1965, there have been other policies worth noting. They include the 1994 White Paper on Reconstruction and Development, the 1997 White Paper on Higher Education which articulated the key role of ODL in the provision of educational access, the National Plan for Higher Education of 2001, the Department of Higher Education and Training Policy of 2004, and the Policy for the provision of distance education in South African universities in the context of an integrated post-school system. Also, various organisations have enhanced ODL development. The work of the South African Institute for Distance Education (SAIDE) and the National Association of Distance Education and Open Learning in South Africa (NADEOSA) in promoting adherence to quality is notable.

Beyond policies, and while there are other institutions promoting ODL in South Africa, the impact of provisions is best seen from the aegis of UNISA, whose student enrolment figures for undergraduates was 374, 531, with a total of 309, 572 being undergraduate students, and 43, 703 being post graduate students. At the masters and doctoral levels, there were 4.668 masters and 2017 PhD students (UNISA 2019). For some time now, ODL students have formed at least a third of all tertiary education students in South Africa (Adekanmbi 2021). In 2015, 40,046 degrees were awarded in the humanities, the sciences and engineering programmes. In addition, the fact that UNISA serves a wide array of international students from 136 countries (Mishra 2017), made it serve as a mentor to other institutions across in the SADC region. Also, notable has been the use of technology in conducting teaching and learning. On collaboration, COL has partnered with South Africa in its open schooling activities and the use of technology for teaching and learning (Mishra 2017).

There are, no doubt, challenges facing the delivery of distance education in South Africa. Letseka, Letseka and Pitsoe (2018: 133) have noted that one major challenge is the context of provisions itself where the landscape is 'marked by instability, uncertainty and unpredictability', with the resultant unequal society being the thrust of ODL intervention. This unequalness thus translates to unequal access to the internet and a related unequal access to computers. Lamenting this disparity for students in the rural areas in South Africa, Aruleba and Jere (2022: 3), note that 'the idealistic state of digital equity remains far-fetched for inclusive ODL'. They also note that 'South Africa has

some of the most expensive data on the continent' (Aruleba & Jere 2022) which is a major problem for ODL students. In a focused study on an ODL institution in South Africa, Joubert and Snyman (2017) also comment on what they saw as generally low participation by students in their e-learning programmes, an observed lack of commitment, inadequate training for tutors and limited interaction between lecturers and tutors. While there are other challenges, it would appear that societal context and ICT usage for e-learning are paramount.

5.4 The Future

South Africa has no doubt shown leadership in the field of open and distance learning in many ways. Three things are key in terms of the future of ODL in South Africa. One relates to the continuing merger of ways between ODL institutions and the conventional education system. In this regard, Prinsloo (2019) has referred to the blurring of boundaries, and his examination of how far the traditional universities have gone in the promotion of online learning. Thus, the second relates to the growth of online learning, which was a major submission of Prinsloo (2019) in his point on the re-imagination of a future for ODL in South Africa. The third relates to partnership which South African institutions can expect, which will also revolve around the work of the Commonwealth of Learning, and that government in providing resources for enhancing the bandwidth and rural electricity for learners.

6 Conclusion

The integration of ODL into the educational system across sub-Saharan Africa is increasing based on the recognition of the socio-economic potentials of ODL, as a strategy for meeting unsatisfied demand in education, especially in higher education. Information gathered on the four countries examined, indicates various levels of development in terms of population, economy, gross domestic product per capita, life expectancy, and literacy levels, among others. While these four countries strive to provide distance learning, South Africa and Nigeria appear to have an edge due to the existence of dedicated open universities, although Nigeria's gross tertiary enrolment ratio still lags behind South Africa's and the continental average. To this end, one would expect Kenya and Rwanda to take a cue from the stories of Nigeria and South Africa, for greater impact. An area of strength is the existence of a range of ODL policy

initiatives at governmental and institutional levels which are driving ODL growth. The limitations to the capacity to deliver by existing ODL institutions include underfunding of education, lack of ICT infrastructure that is an essential component of ODL as well as required personnel to man ODL programmes. Therefore, in order for higher education institutions in sub-Saharan Africa to occupy a pride of place in the 21st knowledge economy, they must incorporate ICT in instructional engagement with their students through open and distance learning. Also, the technological platform requires further input by governments with regard to rural electricity provision, and the enhancement of internet connectivity and usage.

Considering the foregoing, ODL institutions will no longer be evaluated only by sheer student numbers, but by the extent to which such institutions can, in addition, mentor and provide guidance and support to conventional institutions desiring to pursue the ODL dream. For the future, the setting up of dedicated ODL institutions, the implementation of existing ODL policies and the pursuit of a merger of practices between conventional and ODL institutions will be vital. Although ODL has a bright prospect for educational advancement in sub-Saharan Africa, based on students' enrolment figure, existing ODL institutions in the sub-continent have underserved the vast number of students yearning for higher education. With further investment put into ODL work and the sharing of experiences through partnership and collaboration, the future of ODL in sub-Saharan Africa is bright.

References

Adekanmbi, G. 2021. The State of Access in Open and Distance Learning in Sub-Saharan Africa. In Jain, P., N. Mnjama & O. Oladokun (eds.): *Open Access: Implications for Sustainable Social, Political, and Economic Development.* IGI Global.

https://doi.org/10.4018/978-1-7998-5018-2.ch009

Adesulu, D. 2014. Limited Admission Spaces: Way out of Admission Problems, by Stakeholders. Available at:

https://www.vanguardngr.com/2014/07/limited-admission-spaces-way-out-of-admission-problems-by-stakeholders/

Africa Development Bank 2015. African Development Report. African Youth in the Labour Market, Chapter 5. Available at:

- https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/A DR15 chapter 5.pdf
- Anyona, J.K. 2009. The Status and Challenges of Open and Distance Learning in Kenya's Public University. Nairobi: Kenyatta University.
- Aruleba, K. & N. Jere 2022. Exploring Digital Transforming Challenges in Rural Areas of South Africa through a Systematic Review of Empirical Studies.
 - https://doi.org/10.1016/j.sciaf.2022.e01190
- Ayodele S.O., M.A. Araromi, E.A. Emeke & J.A. Adegbile 2006. An Evaluation of the Distance Learning Programme of the University of Ibadan. Ibadan: Johnmof Printers Ltd.
- Badat, S. South Africa: Distance Higher Education Policies for Access, Social Equity, Quality and Social and economic Responsiveness in a Context of Diversity of provision. *Distance Education* 26,2: 183 204. https://doi.org/10.1080/01587910500168843
- CIA 2022. The World Factbook. Kenya. Available at: https://www.cia.gov/the-world-factbook/countries/kenya/
- CIA (Central Intelligence Agency) 2022. The World Factbook. South Africa. Available at: https://www.cia.gov/the-world-factbook/countries/south-africa/
- COL (Commonwealth of Learning) 2019. COL in the Commonwealth 2015-2018. Country Reports. Nigeria. Available at: http://oasis.col.org/bitstream/handle/11599/2882/2015-2018 Africa-Nigeria-Country-Report .pdf?sequence=4&isAllowed=y
- COL (Commonwealth of Learning) 2019. COL in the Commonwealth 2015-2018. Country Reports. Rwanda. Available at: http://oasis.col.org/bitstream/handle/11599/2883/2015-2018 Africa-Rwanda-Country-Report .pdf?sequence=4&isAllowed=y
- COL (Commonwealth of Learning) 2019. COL in the Commonwealth 2015-2018. Country Reports, South Africa. Available at: http://oasis.col.org/bitstream/handle/11599/2886/2015-2018_Africa-SouthAfrica-Country-Report_.pdf?sequence=4&isAllowed=y
- Commission for University Education (Kenya) 2022. Status of Universities. Universities Authorised to Operate in Kenya. Available at: https://www.cue.or.ke/index.php?option=com_content&view=article&id=21&Itemid=475
- Federal Republic of Nigeria 2004. National Policy on Education. 4th Edition.

- Abuja: NERDC (Nigerian Educational Research and Development Council.)
- Gambo, O.O. & S.A. Fasanmi 2019. Funding University Education in Nigeria: The Challenges and Way Forward. *Bulgarian Journal of Science and Education Policy (BJSEP)* 13,1. Available at: https://www.researchgate.net/publication/351096750_FUNDING_UNIV_ERSITY_EDUCATION_IN_NIGERIA_THE_CHALLENGES_AND_WAY_FORWARD
- ITU (International Telecommunications Union) 2018. *Measuring the Information Society*. Volume 1. Geneva: ITU.
- Ivanov, A., April 2022. The University of Rwanda Integrates UNESCO Guidance on Distance Learning into Teacher Training Programmes. Available at: https://www.unesco.org/en/articles/university-rwanda-integrates-unesco-guidance-distance-learning-teacher-training-programmes
- Jegede, O. 2016. Open and Distance Learning Practices in Nigeran Higher Institutions of Learning. Keynote address at the 3rd University of Ibadan Annual Distance Learning Centre Distinguished Lecture and Stakeholder's Forum, International Conference Centre, University of Ibadan, 14-15 July 2016.
- Joubert, Y.T. & A.M. Snyman 2017. Challenges Experienced with Online Tutoring in an ODL Institution. *Progressio* 39,1: 126 145. https://unisapressjournals.co.za/index.php/Progressio/article/view/2139; https://doi.org/10.25159/0256-8853/2139
- Kitainge, K.M. 2004. Reforming Education and Training? Lessons from Development of Vocational Education and Training in Kenya. *Australian Journal of Adult Learning* 44,1,April: 45 61.
- Letseka, M., M.M. Letseka & V. Pitsoe 2018. The Challenges of E-Learning in South Africa. Available at: https://www.intechopen.com/chapters/59935
- Matara, V., 23 January 2020. List of Universities in Kenya Offering Distanced Learning. Available at: https://victormatara.com/universities-in-kenya-offering-distance-learning/; https://doi.org/10.5772/intechopen.74843
- Mbugua, J. 2013. Determinants of Educational Managers' Support for Distance Mode of Delivery: A Case of Western Region Kenya. Open and Distance Learning Conference, College of Education and External Studies, University of Nairobi.
- Mishra, S. 2017. Open Universities in the Commonwealth. Available at:

- https://oasis.col.org/items/9f562be6-1ccc-4d9d-8f44-c7105545460e/full
- Mukama, E. 2016. *Baseline Study on ODeL in Rwanda*. Commonwealth of Learning. https://oasis.col.org/server/api/core/bitstreams/bdffabba-3dc1-4648-a896-6aa75c772284/content
- Mukama, E. 2018. From Policies to Implementation of Open Distance Learning in Rwanda: A Genealogical and Governmentality Analysis. *Journal of Learning for Development* 5,1: 40 56. https://doi.org/10.56059/jl4d.v5i1.237
- Murebwayire, M., I. Biroli & H. Ewing 2015. Abstract. Use of E-Learning to Advance Nursing Education in Rwanda. *Rwanda Journal Series F: Medicine and Health Sciences* 2,2. Available at: https://www.ajol.info/index.php/rj/article/view/125471 https://doi.org/10.4314/rj.v2i2.24F
- Muriki, M. 2020. *Relevance of ODL in TVET Institutions during Challenging Times*. Nairobi: National Universities Commission (Nigeria) 2022. Available at: https://www.nuc.edu.ng/
- National Open University of Nigeria 2018. 14769 Graduates at the 7th Convocation Ceremony. Available at: http://nouedu.net/news/14769-graduands-7th-convocation-ceremony
- National Universities Commission (NUC) 2022. About Us. Available at: https://www.nuc.edu.ng/about-us/
- Ndayambaje, I., T. Bimenyimana & V. Ndahayo 2015. A Study on the Practices and Challenges of Distance Training Programme (DTP) under Kigali Institute of Education (KIE. *Rwandan Journal of Education* 69 76.
- Nkuyubatsi, B. 2016. A Critical Look at the Policy Environment for Opening Up Public Higher Education in Rwanda. Available at: https://jl4d.org/index.php/ejl4d/article/download/141/151?inline=1 https://doi.org/10.56059/jl4d.v3i2.141
- Nyerere, J., 05 December 2020. Moving Online Huge Challenge for Kenya's Higher Education. Available at: https://www.socialsciencespace.com/2020/05/moving-online-huge-challenge-for-kenyas-higher-education/
- Nyerere, J. 2016. Open and Distance Learning in Kenya: A Baseline Survey Report Commissioned by the Commonwealth of Learning. http://oasis.col.org/bitstream/handle/11599/2491/2016_Nyerere_ODL-Kenya.pdf?sequence=1
- Odia, J.O. & A.A. Odia 2017. Accessibility to Higher Education in Nigeria: The

- Pains, Problems and Prospects.
- https://doi.org/10.4018/978-1-7998-1213-5.ch005
- Ogunode, N.J., F.N. Akinjobi & T.G. Olatunde-Aiyedun 2022. A Review of Factors F Responsible for Admission Crisis in Nigerian Higher Education and Way Forward. *Modern Journal of Social Sciences and Humanities* 5: 316-323. Available at:
 - https://www.researchgate.net/publication/361316594
- Ojerinde D. 2011. Contemporary Educational Issues in Nigeria. Ota, Nigeria: Melrose Books and Publishing Limited.
- Olakulehin, F.K. 2008. Open and Distance Learning as Strategy for Human Capital Development in Nigeria. *Open Learning* 23,2: https://doi.org/10.1080/02680510802051939
- Prinsloo, P. 2019. South Africa. In Zawacki-Richter, O. & A. Qayyum (eds.): *Open and Distance Education in Asia, Africa and the Middle East: National Perspectives in a Digital Age*. Switzerland: Springer Open. https://doi.org/10.1007/978-981-13-5787-9 8
- Republic of Kenya 1966. Kenya Education Commission Report (Ominde Report.) Nairobi: Government Printer.
- Republic of Rwanda 2019. Rwanda Voluntary National Review (VNR) Report.
 Sustainable Development Report. Available at:
 https://sustainabledevelopment.un.org/content/documents/23432Rwanda
 2019 VNR Final Draft 17 06 2019.pdf
- Republic of Rwanda 2014. Standards and Guidelines for Open and Distance :earning. Available at:
 - https://hec.gov.rw/fileadmin/user_upload/DOCUMENTS/Guidelines/ST ANDARDS%20AND%20GUIDELINES%20FOR%20OPEN%20AND %20DISTANCE%20LEARNING.pdf
- Sangwa, S., R. Manirakiza & P. Mutabazi 2020. Assessing Students' Readiness for Online and Distance Learning in Rwanda. Available at: https://researchjournali.com/view.php?id=5667
- South Africa 2017. Government Gazette. Department of Higher Education and Training, Policy for the Provision of Distance Education in South African Universities in the Context of an Integrated Postschool System. Available at: https://www.saide.org.za/documents/Distance_education_policy.pdf
- Tarus, J.K., D. Gichoya & A. Muumbo 2015. Challenges of Implementing E-Learning in Kenya: A Case of Kenyan Public Universities. *The International Review of Research in Open and Distributed Learning* 16,1.

https://doi.org/10.19173/irrodl.v16i1.1816

- UIS 2017. UNESCO Institute for Statistics Fact sheet No. 45. UNESCO.
- UNDP 2020. Human Development Report 2020. The Next Frontier of Human Development and the Anthropocene. New York: UNDP.
- UNISA 2019. Unisa Trial Audit 2019. Pretoria: UNISA.
- Vincent-Lancrin, S., C. Cobo Romaní & F. Reimers (eds.). 2022. How Learning Continued during the COVID-19 Pandemic: Global Lessons from Initiatives to Support Learners and Teachers. Paris: OECD Publishing. https://doi.org/10.1787/bbeca162-en
- Waweru. S.N. & F.M. Itegi 2019. Learner Support for Distance Learning Students' Graduation Review in Public Universities in Kenya: A Review of the Study. International Journal of Education, Management and Administration 3,3: 34 - 44.
- World Bank 2022a. The World Bank in Africa. Overview. Available at: https://www.worldbank.org/en/region/afr/overview
- World Bank 2022b. Literacy Rate, Adult Total (% of people ages 15 and above). Available at: June. https://data.worldbank.org/indicator/SE.ADT.LITR.ZS
- World Bank 2022c. School Enrolment, Secondary (% gross). Available at: https://data.worldbank.org/indicator/SE.SEC.ENRR
- World Bank 2022d. School Enrolment, Tertiary (% gross). Available at: https://data.worldbank.org/indicator/SE.TER.ENRR
- World Bank 2018. World Development Report: Learning to Realize Education's Promise. Washington: World Bank Group.
- Zawacki-Richter, O. & A. Qayyum (eds.). 2019. Open and Distance Education in Asia, Africa and the Middle East: National Perspectives in a Digital Age. Cham, Switzerland: Springer Open.

https://doi.org/10.1007/978-981-13-5787-9

Gbolagade Adekanmbi Associate Professor and Dean Botswana Open University gadekanmbi@staff.bou.ac.bw

Chabuya Kadisa Lecturer and Head of Department Botswana Open University ckadisa@staff.bou.ac.bw

Open and Distance Learning for Socio-Economic Development

Thaddeus Mahoso Lecturer Botswana Open University tmahoso@staff.bou.ac.bw

Bolupe Awe Associate Professor Federal University, Oye Ekiti, Nigeria abayomi.awe@fuoye.edu.ng