Modernising the education system to confront realities of 21st-century digital space in Sierra Leone: A practical discourse

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22 January 2022

Online at https://mpra.ub.uni-muenchen.de/112807/
MPRA Paper No. 112807, posted 20 Apr 2022 07:09 UTC
Modernising the education system to confront realities of 21\textsuperscript{st}-century digital space in Sierra Leone: A practical discourse

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Abstract

The article provides an opportunity for critical discourses geared towards the modernisation of education in Sierra Leone to confront the realities of digital transformation in the 21st century. The purpose of the study is carved towards the achievement of addressing three objectives, which include the assessment of technology provision and gaps in the country, and proffering recommendations geared towards edging the country’s hope of making realistic growth prospects that are comparable to its counterparts in the Sub-Saharan African region.

The methodology incorporates discursive analysis of existing technologies that will enable the country to make the right level of progress towards facilitating growth and development. The result unearthed gaps in provision, which is not so much about casting blame, but the need to ensure resources are pulled to address the scope for economic progression across all sectors, while at the same time adding value to the human resource skillset.

The conclusion shows that resources should be pulled to make sure the system is ready to leap in a bid to embrace advances in technology modernisation needed to achieve a sustained level of growth in the economy.

Keywords: Digital Space, Modernising Educational System, Innovation, Sierra Leone

1. Introduction

Education is considered key to economic growth in any economy (Jackson, forthcoming; Zivengwa, Hazvina, Ndedzu., and Mavesere, 2013). The effectiveness of education management, which is an ambit of public sector delivery is very critical to ensuring economic progress is realised in all sectors of an economy - this means that the delivery of planned education agendas must take cognisance of sectoral goals, while at the same time not ignoring the pace or movement of technological progress that is fast-moving across the global economy (Jackson, 2020a; 2016a). Economies around the world and particularly those in Sub-Saharan Africa (SSA) are making sufficient strides to keep pace with the digital space in their education system, which makes sufficient value addition to growth and developments. A notable example is the case of COVID-19, which nearly brought the world to a standstill on account of the need for economies to keep

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their citizens safe from the trauma of continued health risks. As a result of this, many economies and more so in the SSA region had no option, but to seek alternative means of innovative options to ensure learning is made an integral part of the agenda to keep pace with human resource development (Jackson, 2020b). This then meant that the need to facilitate learning had to be done through the creation of innovative means of technology, which in a way could be interpreted as paving the way for bringing to light the global ideology of Schumpeter’s creative destruction (2016b). The emergence of the COVID-19 pandemic brought with it innovations in technology, particularly with improvement in learning resources - to date, almost all forms of learning and the way things are done in financial services are spearheaded by the emergence of new technologies. This to a greater extent could be hailed given the ingenuity it has placed on humans to utilise their imaginations to adapt to a new way of doing a thing. However, it also meant that countries have to be well prepared in keeping pace with the economics of new way of doing things, which is greatly influenced by technological developments and the impact on small scale industries, which are not so well equipped to compete with established businesses to stand the test of innovations (Jackson, 2020e; Jackson, 2020f; Gross, 2019; Ahlstrom, 2010).

While some economies or regions in the world economy have been seen to make tremendous strides in their effort to leverage technology to champion growth, the situation is seen as the opposite for many others, particularly those in the under-developed world. More recently, economies like Sierra Leone, typically classified as under-developed has been moving in the affirmative direction of utilising advances in the digital space to catch up with their counterparts in the SSA region - noticeable among such effort is the emergence of privately sponsored education institutions, which are modeling their institutional focus to accommodate flexible mode of teaching and learning into their curricular system. Despite the ongoing effort by the Directorate of Science, Technology, and Innovation (DSTI) to devote resources to catching up with technology to support equality of access to learning resources for students in public examination classes (off-line access to examination papers), there seems to be a long way in the journey to revert the country to its past glory of being the Athens of West Africa. With the continued support from government and (international) donor support, the ambition of the DSTI to bring Science and Technology to the fore of things in Sierra Leone will certainly yield positive dividends with time, particularly in the area of changes to business systems and the delivery of learning to catch up the pace with 21st-century facilities in the digital space.

Given the above introductory discourses, this paper has therefore carved its impetus in providing the space for critical discourse on the pathway of addressing practical realities for the country to confront the realities of the 21st century digital facilities in bringing education to the fore of supporting human development needs. In that vein, the objectives of the study are therefore set as follows: (i) To assess historical and current provision of the country’s educational provision that lend support to embracing digital advances as the key towards economic development; (ii) To
Given the above, the rest of the paper is therefore set as follows: Section two provides a narrative discourse on the evolution of formal education in Sierra Leone, while Section three, classified into two sub-sections addresses (critical) discourse on the quality of educational provision that is essential to championing economic growth. Section four concludes with some recommended pointers in guiding the way forward to enhancing educational provision in Sierra Leone.

2. Evolution of Formal Education in Sierra Leone

Despite the alluded conviction that formal education was introduced in Sierra Leone by western missionaries, Corby’s (1990) study made a revealing confirmation that learning was already part and parcel of people’s lives through informal means, confined to the local dialect. Corbin’s view about the European’s emergence in West Africa and Sierra Leone, in particular, is that they brought their methods of instruction and supported by subject matter contents, completely different from the way it was dealt with before their emergence - such emergence includes new taught subjects like Science, History, and Classics.

Digressing from Corbin’s telling story, Paracka’s (2004) narrative of formal education in Sierra Leone as perceived in the western diction could be traced from the period of missionary education (1816-1876), colonial education (1876-1938), and development education (1938-2001). Christian missionaries certainly have played a very important role in the transformation of education in Sierra Leone as witnessed in their efforts to support learning through the establishment of schools across the country (Warburton, 2022; Jackson, 2016b). Typical highlights include the C.M.S. Grammar School (first in the West African sub-region established by the Anglican foundation), Methodist Boys and Methodist Girls High Schools (the Methodist Church in Sierra Leone), Convent and St. Edwards Secondary Schools established by the Catholic foundation, the West African Methodist Collegiate School (an establishment of the West African Methodist Church) and many more.

While it is obvious the role played by Christian missionaries in promoting formal education in Sierra Leone, the same can be said about the role of Islam and education in the colony, in the hinterland of the country (Skinner, 1976). The impression of Muslim added value to Sierra Leone’s present-day education and advances incapacitating human intelligence is still making a lasting impact in the country. Given the secular system of governance in Sierra Leone, the country is certainly blessed with the mixing of Christians and Muslims in all sectors of the country’s educational structure. This to a larger extent is placing the country as being unique for championing
secularism, to ensure people integrate well as a single unit when it comes to dealing with progress towards economic capacitation.

With the passing of times, and particularly thereafter the post-colonial era, the country was driven into a state of sadness with the incursion of a brutal civil war, which reaped through the fabrics of lagged progress and an almost brain drain of human knowledge (Ferne, 2001). The rebel incursion in the late 1980s made a lasting impact on the country’s lagged progress towards its hope of catching up with counterpart economies in the Sub-Saharan African (SSA) region. Davies (2000) elucidated the economic dimension of the brutalised civil war the country went through, which to a large extent could be blamed on the easy access to blood diamonds promoted by protagonists, who were most certainly seen as the main financiers of the war, while government’s approach in addressing the situation was considered incongruous. In all these, one should be very thankful for the support received from international donor partners, whose efforts made it possible for the country to be placed in its present state of planning progressive developmental goals that are inclusive of embracing the Sustainable Development Goals (SDGs), of which technological progress is an integral part. The country is still at the mercy of donor support when it comes to making it possible to promote education to its highest level - such could be vividly seen with the introduction of free education for children at the primary and secondary levels in 2018. This has been well received given the scope it has created for those on the poverty line to be privileged now to be in schools to gain valuable basic education qualifications, which is integral to their progression into higher education. Despite challenges, the effort must and should be hailed given its intention to promote equality of opportunities for every citizen regardless of class, ethnic grouping, or place of residence in the country. There is certainly the need to make sure the effort is continued and properly championed to enable every child to make the most of an opportunity availed to them, which is free education without the need to be sent out of school for failing to pay school fees.

3. Quality of Educational Needed to Champion Economic Growth

This section is structured to address two sub-sections as exemplified below. Technology is moving on, with high scope for it to make a tremendous impact on a country’s hope of growing economically. As identified in the sub-sections below, a lot is needed to ensure the country move in the right direction of growth and development of human skillset.

3.1. Expanding provision

The expansion of higher education provision across the country to cover technical and vocational education is one to be hailed by those in governance. This in reality could be seen as a way of paving the way towards capacitating human resource skills across regional areas, while at the same time identifying skills shortages and potential for real sector development to support a
buoyant economic system. The determination to expand higher education providers should not only be limited to the sector but should be skilfully managed to identify potential relevant skill-gap as early as in the secondary school levels for those who wish to move into a vocational career. While this is championed, the focus should be placed on ensuring technical provision is well supported by the relevant technical resources to enable key sectors to be well supported with highly skilled human power, with their output strongly capacitated to achieving self-sufficiency in the country’s hope of becoming improving its digital space. There are myriad gains to be made from a well-planned and expanded educational provision; to cite a few, increased productivity in all sectors of essential goods and services, the high scope of attracting foreign investment, which also have the potential of increasing employment prospects and generating sufficient revenue towards government through taxes raised (both Pay-as-you-Earn and other relevant business taxes).

While the focus as identified in this section is to expand provision, efforts must be made to move with the times by ensuring high-level technology skills are key to increasing a country’s competitiveness with the rest of the world (Jackson, 2021a; Jackson, 2016b; Jackson, 2015). Therefore, expansion of educational provision must take cognizance of developing essential faculty provision capable of meeting the needs of a well-planned national target, while also targeting human potential capable of utilizing resources to make value addition to the country’s skills gap. Advancements in technology that incorporates Artificial Intelligence (AI) and Machine Learning are certainly leading the way in ensuring a country is well capable of competing with the 21st-century creative destruction goal (Jackson, 2021; Jackson, 2020c). Such an approach should be well planned so that expansion in educational provision takes cognisance of emerging developments in the trend of things as they happen in the world of work, but particularly that which is needed to empower the human skillset in achieving the planned agenda of the United Nations Sustainable Development Goals (UN SDG) - soon to make way for all economies across the world (Jackson, Jackson, and Jackson, 2020).

In a bid to ensure everyone is factored into the planned goal of modernizing the education system to meet the needs of 21st-century digital space, goals must be set, in addition to the above to ensure equality of access, while provision is made an integral part of those who are decision-makers. Therefore, provision must be made to create competitive schemes whereby both male and female learners from as early as primary schools are identified based on their potential in areas of Science Technology Engineering, and Mathematics (STEM) - this is very critical to the goal of ensuring women are also given equal opportunities of being part of a national development strategy (Jackson and Jackson, forthcoming; Jackson and Jackson, 2020; Blumberg, 2005). The process of modernization must be all-encompassing, with attention focused on empowering the human intellectual mindset in a bid to make it worthwhile for them to be part of a national drive towards developing a nation.
3.2. Peculiarities of Domestic economy needs

Sierra Leone is characterised as an underdeveloped economy given its common peculiarities, which is typical of all economies that are high debt-driven, import driven given the low potential for the real sector to meet the domestic consumption needs of its citizens (both in terms of goods and services provided), low level of human development skills level and many more (Jackson and Tamuke, 2022; Jackson and Jabbie, 2020; Jackson and Jabbie, 2019; Korsu, 2014; GoSL, 2013). Such characteristics may render the situation very worrying and difficult for an economy like Sierra Leone to catch up in terms of development progress in technological advancement when compared to her counterparts in the SSA region like Ghana and Nigeria. However, a well-planned approach as to how best to manage resource distribution amongst sectoral areas is very critical to Sierra Leone’s hope of catching up with trends in technological advancements that are geared to capacitate the human development skill-set.

On a cautious note, one will be very much inclined to be a devil’s advocate by proposing a total overhaul of curricular provision across the education spectrum. The purpose of this is to ensure the rough assessment is made in terms of projecting human development needs, which will enable the country to progress at a pace that does not necessarily result in the over-stretching of resources already earmarked for the good of other essential services. Equally in line with the second objective, there is the possibility that this approach will also lend support in enabling relevant experts to plan gaps in the country’s human resources skillset needed to make a meaningful contribution towards sustainable economic growth for both present and future generations. Given the requirements to meet international standards on technological development, specifically in areas like Big Data and also Payment Systems, it should be treated as a pressing need for higher education institutions in the country to build capacity through professional development opportunities for experienced lecturer to enhance their skills through overseas training, which will eventually impact on the development of specialist courses at undergraduate or postgraduate level to ensure the country is well capacitated with people to work in the sector.

While it is very much needed to build capacity in human resources development to address the shortfall in technological progress, authorities must make sure resources (both financial and material) are readily available to support the need to push the country on the pathway of growth that will make it possible to catch pace with other economies in the SSA region. This could be done by ensuring institutions with technology specialism are prioritized in terms of resource allocation towards the development of modernising the country’s hope of catching pace with the digital space needed to create opportunities for nationals. In the interest of ensuring equality of opportunities is made an integral part of planned objectives, it will be good for skills development to be earmarked in all regional centres across the country, while at the same time ensuring both men and women are given equal access to opportunities in developing their potential.
3.2. The role of Digital Transformation

Generally across the world, digital transformation is taking centre stage in how economies transcend into becoming fully integrated into the realm of things. To start with and as seen across many of the regional counterpart economies like Ghana and Nigeria, which were catching pace with Sierra Leone are now keeping up with developments in their approach towards technology integration in teaching and learning, particularly in the higher education sector. As recently outlined by Jackson (2020d, 2018, 2017, 2016, and 2015), there is a need to ensure virtual classroom (e.g., MOODLE, etc.) is made an integral part of the learning experience of learners (across the education and professional development spectrum) to ensure consistency in learning is monitored both within and outside of the formal learning environment.

As we can see, technology is evolving every day and there is a high risk of old technologies being considered obsolete on account of the power of human ingenuity to think in the direction of being brutally creative (Jackson, 2021; Langroodi, 2017). Institutional advances need to be carved in such a way that human endeavours should be capacitated to encourage human ingenuity to be developed competitively. Sierra Leone is still behind when it comes to people’s access to technology. Despite the use of WhatsApp being a common means through which people are availed to the digital space, realistically, its use is not so well utilized to take advantage of its low cost in formalising people’s hope of increasing their knowledge as addressed by Jackson (2020d) in a recent study devoted to understanding its use by learners in Sierra Leone’s higher education system.

As already mentioned in the earlier part of this paper, digital transformation is transforming economies in a variety of ways. Notable among this is the case of the Big Data platform, which now makes it quite easy for institutions to access data through provisions like ‘web-scrapping’ - a feature that was common amongst big institutions in determining trends in economic activities during the COVID-19 heightened period of lockdown to save lives (Hillen, 2019; Altbach & de Wit, 2020). Likewise in the financial environment, Sierra Leone is also moving in the direction of catching up with the need to transform her digital space in financial technology through the growing use of mobile money and very soon, a high powered National Switch that will make it possible for users to send and receive money at a much faster rate. Hence, one will consider it very necessary for human ingenuity and resources to be directed towards increasing human skillset to make it possible for institutions to utilise both facilities in the area of Big Data analytics and the financial services infrastructure. More specifically, it is high time for higher education institutions in particular to commence the process of diverting resources towards building capacity in these areas and many more to enable human skillset to be well developed as opposed to paying high costs for importing specialist skills from overseas. While it is seen as if time is on the way for institutions to plan for the delivery of such provision, actions must be taken as soon as possible to limit huge costs to the country as a whole in importing human services from overseas.
4. Conclusion and Recommendations

Given the aforementioned discourses, one will be more emphatic in creating an assurance about the hope for the country to move in the direction of catching up with the rest of the world aimed at modernising the country’s digital space needed to make rapid progress in the 21st century. Given the almost one decade of the brutal civil war the country fought through to quell in the early 2000s, this is still a resonating incidence, which is still prevalent in the fabrics of destructive infrastructures and brain drain the country is still trying to catch up with. Despite these, the country has seen the resurrection of a vibrant culture in people’s appetite to improve their human resource power as a means to achieving decent survival and scope for economic progression, now seen to be resonating well in all areas of professional endeavours (Jackson et al, 2020).

Moving on to capacitate the country’s hope of making meaningful progress towards improving its digital space, considered essential for tangible economic growth, it must be emphasised that everyone (not necessarily to be left in the hands of the Central government) must work concertedly to the best of their ability in adding value to resources provided. In that vein, one will be more inclined to highlight the following pointers considered worthwhile recommendations in modernising the country’s hope of spearheading progressive digital space for the betterment of nation-building:

- Curricular restructuring is considered vital here, with the hope of ensuring targets are set for technology to be made an integral part of all subjects offered. In this regard, efforts must be made to integrate virtual learning into the mode of teaching and learning. This will create an opportunity for the learning process to be monitored equally by parents, particularly for children in the primary and secondary school stage.

- Resources must be directed at capacitating the country’s human resource skillset towards career options that are considered critical for progressive growth, while also making it possible for the country to be seen as a potential hotspot for investment purposes.

- Those in governance, particularly in the education sector and at the political helm of things must endeavour to promote equality of opportunities in all corners of the country. This means that children, both boys, and girls must be availed of the opportunity to access STEM, which therefore creates an option for them to think as early as possible about what is best for their future goals.

- Higher educational establishments in particular must endeavour to utilise resources to create marketable courses, particularly in areas of interdisciplinary curricular provision that incorporate technology concepts like Big Data and Artificial Intelligence (AI). In this regard, the Tertiary Education Commission (TEC) must endeavour to encourage competition amongst
institutions in key areas like STEM education, which on the whole will bring pride to the country’s hope of keeping pace with counterparts in the SSA region and the rest is the world.

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