



EXAMINING THE OPPORTUNITIES AND CHALLENGES THAT INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) DEVELOPMENT HAS BROUGHT FOR AFRICA

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Cite this article:

Idoniboye-Obu T. I. (2022),
Examining the Opportunities and
Challenges that Information and
Communication Technology (ICT)
Development has Brought for
Africa. International Journal of
Library and Information
Management, 1(1), 1-7. DOI:
[10.13140/RG.2.2.30352.89600](https://doi.org/10.13140/RG.2.2.30352.89600)

Manuscript History

Received: 10 Dec 2022

Accepted: 20 Dec 2022

Published: 29 Dec 2022

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ABSTRACT

This paper examined the opportunities and challenges that information and communication technology (ICT) development has brought for Africa. The paper sees ICT as a blessing in different facets of the word in the positive light than the negative in Africa as a continent. The paper presents ICT as the god of this world that can and has turned things around with the spark of technology in every facet of the word in terms of air travel industry, banking, culture, education, health, environment, research and so forth. These are some of the opportunities ICT brought to Africa that the paper addressed. The paper equally discussed few challenges of ICT that are very key in most African countries of the world which are but not limited to only these. The challenges discussed are improper planning, acquisition and maintenance of technologies, linguistics, political instability, lack of infrastructure and so forth. The paper therefore recommends in a nutshell that since African countries are phased with numerous challenges, there should be a proper plan to lift Africa from these challenges discussed in this paper and others not listed in this paper to be addressed without further delay to bring about the needed change that Africa needs.

Keywords: opportunities, challenges, ICT, development, and Africa

INTRODUCTION

The acronym ICT means Information and Communication Technology. It was introduced into Africa years ago by the developed world to transform African countries from industrial and agricultural to information and knowledge society. ICT is used in business, education, training, research, culture, and entertainment among other sectors. Information and communications technology comes with great opportunities as well as challenges. Individuals, groups, communities, and nations in all of Africa are faced with the opportunities and challenges of the new information and knowledge society. There is therefore a real need for the development of new tools of analysis in terms of people of Africa different mentalities and attitudes to have a re-orientation to easily adapt to the emerged “new” civilization which is based on information and knowledge Alemna (1999). In agreement with Alemna (1999), Durrani (2007) describes information society as “a society in which the ‘creation distribution and manipulation of information has become the most significant economic and cultural activity”.

Durrani (2007) holds that

“Information society may be contrasted with societies in which the underpinning is primarily industrial or agricultural. The tools of the information society are computers and telecommunications progress in information technologies and communication in changing the way people lead their lives, how they work and do business, how they educate their children, study, carryout research, train themselves and how they are entertained”.

Durrani (2007) argues further that “Africa needs to make the shift from reliance on agricultural and industrial activities to a society based on knowledge”. The term “knowledge economy” is used to refer to “using the generation and exploitation of knowledge as a predominant player in the creation of wealth”.

Based on the above scholars’ sentiments, the researcher contemplates that, they are strongly of the opinion that Africa really needs the information and knowledge to acquire some more effects in terms of meeting up with the standards of western world in technology, though industrial and agriculture is still very important, but technology is equally very vital in this 21st century. Without which some aspects of the development that the world is racing to now will not be met.

On this premise, this paper stands to examine the different opportunities that ICT has brought for Africa that has made Africa to change from what it used to be known and the challenges that Africa is facing right now despite the inception of ICT and how Africa can move away from her challenges if possible.

Opportunities:

Declaring opportunities, one would like to ask what are opportunities really? And the Oxford Advance Learners' Dictionary defines it as "an occasion or situation which makes it possible to do something that you want to do or have to do or the possibility of doing something" (2008, P.999). That is means that Africa at one point in time, wanted to do something that it has not been done before, and when this occasion or situation of ICT came, they (Africa) accepted it without any doubt. And this takes the paper to some of the different of opportunities ICT in Africa below.

Below are some of such opportunities ICT has brought to Africa in alphabetical order:

Air travel industry: the air travel industry as it is now, is excelling. It is not how it is was some years ago wherein people hardly use that means for travelling. But right now, it is flourishing in terms of adding value to the economy of the nation wherein they are operating no matter the cost in flight ticket. According to Moyo (1996), ICT has revolutionised Africa by facilitating development of automated reservation systems when booking for flights. Besides booking for flight reservation and it has also made traveling a lot easier whereby the clients can equally check in their luggage's before the normal (physical) time of checking in of luggage's at the airport. All of these is to make the stress of travel fun and enjoyable. By way of example, all African countries are in the business of air travel with their airplanes, with instance to Zimbabwe since 1994 has started the air travel industry likewise, some other Africa countries.

Banking: according to Moyo (1996) the inception of ICT, has given rise to" twenty-four-hour banking system. And some of the ICT inverted banking system are ATM banking, POS banking. ATM stands for (Automated Teller Machine), An ATM card is a bank card used to access an ATM of a bank, while POS stands for (POINT OF SALE) which individuals use to bank at different instances when the need arises for them to transact any financial banking. More so, there is branch networking in most Africa countries of the world, which has now made the transfer of money easy from the western world to Africa, by way of example in Nigeria the banking sector has been reported as the leading information technology innovator. In addition to the ATM and POS banking there is also the e-wallet in south Africa and e-naira in Nigeria all are the merits of ICT in Africa making the banking sector to be functioning better than it use to be.

Culture: culture as it where is a way of life of people. According to the Merriam-Webster Online Dictionary, culture is "the customary beliefs, social forms, and material traits of a racial, religious, or social group". To illustrate further, ICT has indeed brought to the fore in a positive light diverse culture of the world wherein, Africa have learnt some aspects of the western culture to blend with the African culture. By way of example: the western culture of wedding (white wedding) that African has adopted has been embedded as part of its culture has come to stay and some others.

Education: according to Alemna (1999), in the field of education, information and communication technology is a means of complementing "African traditional educational techniques to enable

Africa educational systems to adapt to the different learning and training needs of the African Societies". By way of illustration, with ICT, in Africa it has enhance blended learning and make e-learning easier to understand what is taught and enjoyable, whereby people can study in the comfort of their homes, if they are able to get the necessary computer accessories to go online and study with easy.

In this vein, Madon (2000), also affirms that ICT brought the use of networks for primary, secondary, and tertiary schools to enable learning to be more interesting and participatory. Apart from that, it also introduced distant learning in the education sector whereby making students to be school in any part of the globe with less stress. The issue of education was still stressed further, in the sense that, the idea of distance learning became more feasible, of which there is now easy of connectivity of students and scholars alike all over the globe sharing ideas and findings in different areas of research that are been published in journals and textbooks as hard and soft copies. But if it were to be the African traditional educational system alone, the reality of such broad and interconnectivity will not be there.

To illustrate further, Christian (2008), also have the same idea of ICT, in terms of opportunities, ICT has been an avenue to improve human progress in education in diverse ways in order reduce traditional barriers in disseminating knowledge for the benefit of the global populace in their level of development

Environment: in this area also, ICT has helped Africa to learn and understand its physical and ecological processes and to forecast and respond to disasters and catastrophes before they occur, so that there will not be much calamity Alemna (1999). In essence, ICT has helped Africa to be aware of climate change and how to deal with the different issues of taking care off her environment in terms of planting of trees to enable humanity of be safe with the different emissions of toxic waste in the atmosphere. This is so that we could breathe fresh air that will not be hazardous to our (human) health. These and others not mentioned are what ICT has brought to Africa.

Health: in this aspect, Moyo (1996) said ICT has brought" health net to Africa, and this health net is a telecommunications system that links physicians, researchers in the medical field, medical educators, and other health care workers in the developing world with their colleagues abroad. ICT has really made an impact in the health sector in Africa and has assisted in solving some health problems. For instance, the outbreak of Ebola virus in Zaire in Nigeria, that was diagnosed and treated. All because of health net.

To confirm what Moyo 1996 said, Madon (2000), says that,

Health net links health workers in sixteen African countries and four Asian countries. He also made mention of the Ebola virus in Zaire in Nigeria that was



helped solved by health net, all these were made possible because of the e-mail, a list server, electronic publications, and database access that they share.

Recently, one can recount that it is with the help of ICT that surgery is done differently now from the traditional operating pattern which is (cutting open) of the human body in some conditions of health. Also, ICT has brought about IVF (In Vitro Fertilization) and surrogate in childbirth. Covid 19 health issue was managed all because of ICT. These and many more not mentioned in health in this paper that ICT has brought to Africa.

Research: is now made easy is because of the introduction of ICT into Africa. Scientists in their various fields, have been able to come out with quick results to their findings. And this is because of the easy way of accessing and disseminating scientific information and sharing of research facilities more quickly on a larger scale, and in a more interactive way with other scientists across the globe Alemna (1999). Additionally, in all field of study, research has become a lot easier such that scholars all over the globe could attend conferences, seminar, workshop, symposia if they chose to without physically attending such.

Having seen some of the numerous opportunities that information and communication technology has brought to Africa for the past years. It will be wise to say that Africa has been blessed with the presence of ICT which has now cause Africa to move forward a bit like the developed countries in terms of education, research, environment, cultural, banking, air travel, health, and so forth.

Despite the numerous opportunities that ICT has brought to Africa, there are still challenges that Africa or Africa countries are facing or are faced with. And these challenges are not far-fetched from what we are experiencing as Africans in our different countries.

Though there are diverse challenges but below are some few that this paper wishes to address.

Below are some of such challenges ICT has brought to Africa

Challenges:

Improper planning: According to Moyo (1996), one major challenge of ICT in Africa is improper planning. For Moyo (1996), careful planning is one important idea that leads to success, be it on short term or long-term basis. But when the reverse is the case, there is every possibility that there will be challenges that will lead to failure at the end. And that is what is happening to some or most African countries today even when they have experienced opportunities before. They were not careful to handle the opportunities with both hands as to make a good use such opportunities to the best of their abilities.

Acquisition and maintenance of technologies: for Alemna (1999), the challenges Africa is facing, is the “cost of acquisition and maintenance of these technologies” could be seen as challenge, “since they are not financially buoyant, and their economy is not stable most times,

Africa lacks capacity of finance and capacity of maintenance culture to be able to take good care of these technologies they have acquired with huge some of capital since the inception of ICT

Linguistics: is another reason according to Alemna (1999) that has been a challenge to Africa in the sense that, 90 percent of the database on the internet is in English. This means that neighbouring countries with different linguistics backgrounds will find it difficult to exchange information technology in spite of their locations. Besides, there is also low computer literacy, a critical prerequisite for ICT use. In essence the scholar is saying that, for Africa to benefit maximally from ICT, its populace should/must be taught the English language that will enable them benefit from the numerous information ICT offers and make a meaning out of them.

Political instability: is also one major challenge that most Africa countries suffer from such that they could not afford to have ICT well developed in their countries because most times their government is changed. Political instability normally results to policy overturns and fresh beginnings all of which hamper programmed development which ICT requires.

Lack of infrastructure: Further challenge of ICT in Africa is lack of infrastructure in electricity, most African countries lack constant electricity that will empower these technological equipment's to function well to bring the desire result at the end in term of productivity in various fields such as education, research, health, banking, and so forth.

CONCLUSION

From all that has been said earlier on in this paper, it is very clear from all indication that ICT has brought more opportunities than challenges. And if the opportunities are well taken care of in the different African countries, it can as well surpass the challenges that are facing them, which will be a thing of the past, in Africa. Whereby creating a solution to solve the challenges in the future. There is therefore need for African countries to up their game with ICT in the areas where the challenges are enormous so that the digital divide could be bridge to an extent. Mind you it is only an honest suggestion to follow.

Recommendation: this paper recommends that African countries should endeavour to swing into action without further delay in taking/handling the challenges and move with the trend of technology (ICT)

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