

COST OF INFORMATION & COMMUNICATIONS TECHNOLOGY: ESSENTIAL FOR NIGERIA SOCIAL CHANGE AND ECONOMIC DEVELOPMENT

EMMANUEL UKPE & S. M. F. D SYED MUSTAPHA

School of Information and Communication Technology, Asia e University, Jalan Sultan Sulaiman,
Kuala Lumpur, Malaysia

ABSTRACT

The relationship between Information and Communications Technology (ICT) supported system and economic development of a developing country has been documented by several studies [1], [2], [3]. Studies indicated that ICT can significantly and positively impact development and economic landscape of Nigeria if deployed. For many years, Nigerian government and businesses have been investing in Information and Communication Technologies (ICT) as a strategy for promoting development (Author Observed). This strategy has increased demands on Nigerian government to invest both human and energy resources into the development and expansion of ICT infrastructures. This paper adopted the view that while certain organization cultures are absolutely essential for development other organizational forms are not as critical. This paper focuses on to those organizational cultures which are critical for development, such as IT adoption, diffusion and usage as well as impact of IT on Nigeria economic growth.

KEYWORDS: Cultures, Economic, Development, ICT, Organizations

INTRODUCTION

Information and Communications Technology (ICT) is widely touted as a means for effecting changes in business processes. These changes, if properly implemented, can translate directly to wealth maximization and other economic development. [4] Defines ICT as a “diverse set of technological tools and resources used to communicate, and to promote, disseminate, store, and manage information. These technologies include computers, electronic data processing, broadcasting technologies, telephony, telecommunications, audiovisual equipments, the Internet and related services.

WHAT IS ICT FOR DEVELOPMENT?

According to [5], ICT in development is a comprehensive approach to innovate economic growth, methods and management of the process. It is unfortunate that ICT is not perceived as a reliable agent and or considered a powerful tool for economic development in Nigeria. In the last three decades, ICT has been characterized as an invaluable platform for economic growth, which continued to attract attention from various sectors in developing nations. ICT has revolutionized the global economy with changes in processes and different economic activities [6]. Studies have proved that given the right infrastructure, deployment of ICT can facilitate socioeconomic development.

[7], provided significant results where ICT investments had considerable impacts in the developed world economy, through improved productivity, competitiveness and citizen involvement, which produced increase gross domestic product (GDP) for the United States by 7.8%, 8.0% in the UK, 8.3% in Singapore and 8.4% in Australia. However, with respect to Nigeria, the impacts of ICT investments on economic development are limited in part due to the perception of technology by the leaders and other policy makers. For example, educators and leading government policy makers have acknowledged that the education system in Nigeria is in dire need of technology reforms. However, the public

school system, structure, education is not supported by any ICT based systems. Thus, where there is evidence of ICT system, its purpose is constrained by several challenges ranging from power failure; outdated systems to unavailability of ICT qualified educators. The irony is that Nigerian government believes and has seen strong evidence that ICT can play a significant role in education and economy event as witnessed in other developed countries.

NEED FOR ICT IN NIGERIA

Re-thinking and radically redesigning of all sectors through the adoption of ICT would be a viable option for economic development in Nigeria. Unfortunately, as [8] realized, investing in ICT has not been a top priority for many developing governments for many years, Nigeria included. For example, in 2011 budget, the Nigerian government allocated N356, 495,828,145 to all Federal institutions in the country educating more than 31 million citizens compare with N150, 000,000,000 allocated to the National Assembly of less than 300 citizens [9]. That is about 42% of general education budget for a handful of lawmakers; we do not know the rationale or justification for such lopsided distribution, especially when the policy makers and other educated government officials understands the need for ICT in teaching and skilled workers. The current education budget is hardly enough to improve basic educational infrastructures in the country, let alone adopt new ICT infrastructures.

As can be noted, the current government has no specific policy for ICT in education [10], even if the government has ICT policy, it would be difficult to deploy and implement any general ICT plan for education with this type of budget allocations. It is even harder for educational institutions to fulfill their traditional obligations considering the lack of electric power and telecommunications infrastructure. Investing in ICT requires substantial resources, clear objectives, and commitment on the part of government officials. Research has shown that moderate training can reduce extreme poverty, and implementation of ICT to education has the potential to stimulate, enhance, and develop skills. Skills that could inspire and engage students, to help understand learning to entrepreneurship, there-by creating self-employment and economic viability for tomorrow's workers, while strengthening teaching techniques.

Various literatures indicate that substantial progress in economic development is realized through the proliferation of ICT into national economic activities [11], [12], [13]. There is remarkably little research or documented reports on the impact of ICT investments in Nigeria and other developing nations [14]. Hence this article posits the need for an important research in Nigeria through studying ICT investments and their implications for economic development. Based on the literature reviewed, a formal assessment of technology investments in terms of costs and benefits has rarely been carried out. For example, World Bank fund nearly 1 billion US dollars of ICT investments as a part of their developing countries lending programs and grant assistance, the evaluation of the ICT components of these programs in terms of overall impact has been very weak and discouraging [13]. Improved and application of technology education is essential to the development of effective human capital in any country [15].

The need for ICT in Nigerian cannot be overemphasized. In this technology-driven age, everyone and organizations require ICT competence to survive. Organizations are finding it extremely necessary to re-train their employees to establish or increase their knowledge of computer applications and other ICT tools [11]. The Nigeria education system must continue reforms, to be competitive with other developed nations and depart from the system set up by colonial rulers, which is not design to help Nigeria as rightly stated by [16] that "old education systems in many African countries were not developed to empower Africans". This statement calls for early acquisition of ICT skills by citizens; the ability to use ICT tools effectively has become an essential part of our daily lives.

IMPACT OF ICT ON ECONOMIC GROWTH

Investment in ICT would lay the groundwork for transforming Nigeria's economic outlook. Research has shown that investment in ICT can have sustained impact on economic growth and development of any country. ICT has revolutionized the developed world economy with changes in different economic activities [6]. Studies have also shown that given the right infrastructure, ICT can be an enabler for socioeconomic development. [17]. Argue that a country's ICT infrastructure can make a direct contribution to her gross domestic product also include all-encompassing impacts throughout the economy, by reducing business transactional costs, improving organizational process and functions, improving the logistics of materials to production and finally to the ultimate consumer. At present, it is widely recognized that knowledge is increasingly becoming preference of exchange for business and countries need to focus on building up their capabilities to compete in this area. A country with economic growth intentions should develop her citizens, because several empirical studies have shown that educated and skilled people usually create, share, and apply the knowledge to facilitate the effective creation, dissemination of wealth [18], [1],[19].[17]. note that "Countries with extensive information infrastructures that used ICT applications possessed advantages of sustained economic growth and social development" (p.4). The adoption of ICT is paramount to survival and growth of any economy and gender empowerment. Considerably, ICT deployment can potentially have a transformational impact on Nigeria education system, on the economy, and practically on every segment of society where money and products are exchanged. ICT can bridge the gap and expand access to education, facilitate learner-centered learning in Nigeria where teacher-centered processes have already been the case.

CONCLUSIONS

For Nigeria to make effective use of ICT for social and economic development, the challenges that have been illustrated above have to be addressed. If addressed and properly implemented, information and communications technology has immense potential for knowledge dissemination, sustained economic growth and social development. Without a doubt, ICT across all sectors would be essential foundation upon which the Nigeria economic recovery will occur. To ensure success, it is essential for organizations to understand and address the management practices, of different ethnic groups in Nigeria. We believed that differences in national culture could affect the use and acceptance of ICT and in the areas of timing, response to problems, problem solving methodology and interpersonal relations between different groups. Furthermore, to ensure, stakeholders ranging from the private sector, government, multinational corporations, and the civil society across different ethnic groups must cooperate to drive ICT growth. Particularly, all parties responsible for successful technology plans, legal, regulatory and ICT framework must endeavor to develop policies to facilitate successful implementation. Adopting and deploying ICT to improve all sector and economic growth would be a better way to rewrite Nigeria experiences of a troubled past, history of tribal/cultural misunderstanding and problems of ethnic/religion discriminations.

REFERENCES

1. Walsham, G. and Sahay, S. (2006) Research on Information Systems in Developing Countries: Current Landscape and Future Prospects, *Information Technology for Development*, **12**, 1, 7-24.
2. Kumar, R. and Best, M.L. (2006) Impact and Sustainability of e-Government Services in Developing Countries: Lessons Learned from Tamil Nadu, India, *The Information Society*, **22**, 1, 1-12.
3. Rajalekshmi, K.G. (2007) E-governance Services through Tele centers: The Role of Human Intermediary and Issues of Trust, *Information Technologies and International Development*, **4**, 1, 19-35.

4. Tinio, V.T. (2009). ICT in education. *United Nations Development Programme*. Bureau for Development Policy, New York, NY.
5. Bhatnagar, S. (2005) ICT Investments in Developing Countries: An Impact Assessment Study, *Information Technology in Developing Countries*, Newsletter of the IFIP Working Group 9.4, **15**, 2, 1-8.
6. Kodakanchi, V, Abuelyaman E, Kuofie, M.H.S and Qaddour, J. (2006) An Economic Development Model for IT in Developing Countries, *Electronic Journal of Information Systems in Developing Countries*, **28**, 7, 1-9.
7. Bhatnagar, S. (2000) Social Implications of Information and Communication Technology in Developing Countries: Lessons from Asian Success Stories, *Electronic Journal of information Systems in Developing Countries*, **1**, 4, 1-9.
8. Bambanota, G. M. (2006). L'école Congolese de demain: quelles chances et quels défis? *L'école Démocratique*. Retrieved February 14, 2010 from <http://www.skolo.org/spip.php?article355&lang=fr>.
9. Office of Budget of the Federal Government of Nigeria (2011) Education and other Budgets <http://www.budgetoffice.gov.ng/EDUCATION.pdf>.
10. NITDA (2007) Nigeria ICT in Education Policy. Retrieved July, 2011 from http://www.nitda.gov.ng/index.php?option=com_content&view=article&id=176&Itemid=157.
11. Adomi, E.E., & Anie, S.O. (2006). An assessment of computer literacy skills of professionals in Nigerian university libraries. *Library Hi Tech News* 23 (2): 10-14.
12. United Nations Conference on Trade and Development (2006) Information Economy Report on the Development Perspective, United Nations.
13. World Bank (2003) Information and Communication Technologies: A World Bank Group Strategy, April.
14. Checchi, R.M, Hsieh, J.J.P.A and Straub, D.W. (2003) Public IT Policies in Less Developed Countries: A Critical Assessment of the Literature and a Reference Framework, *Journal of Global Information Technology Management*, **6**, 4, 45-64.
15. Evoh, C.J. (2007) Policy networks and the transformation of secondary education Through ICTs in Africa: The prospects and challenges of the NEPAD E-schools Initiative. *International Journal of Education and Development Using Information and Communication Technology (IJEDICT)* 3 (1), 64-84. <http://ijedict.dec.uwi.edu/include/getdoc.php?id=2198&article=272&mode=pdf>
16. World Bank Report No 127. (2008). Governance, Management, and Accountability in Secondary Education in Sub-Saharan Africa. *Africa Human Development Series*. The International Bank for Reconstruction and Development. The World Bank. Washington, D.C.
17. Torero, M. & Braun, J.V. (2006). Information and communication technologies for development and poverty reduction: The potential of telecommunications. *International Food Policy Research Institute*. Washington, DC.
18. Anderson, N. (2009). Equity and Information Communication Technology (ICT) in Education. Peter Lang Publishers, New York.
19. Unwin, T. (ed.). (2009). ICT4D. Information and communication technology for development. *Cambridge*: Cambridge University Press.