

## Chapter 21

# Influence of Information and Communication Technologies (ICTs) on the Digital Economy

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### ABSTRACT

*The economy has taken a new facet in recent times through technologies like Information and Communication Technologies (ICT), ushering radical change in all sectors in developed and developing nations. ICT has transfigured the traditional services and productivity of libraries and other organizations to more sophisticated methods. A powerful catalyst of this change is digital transformation, integrating ICTs into the economy, referred to as the “digital” economy. However, the chapter identified ingredients of the digital economy, and spheres ICT have influenced the digital economy. Information and Communication Technology Council (ICTC) and Spire and Barlett frameworks were adopted to buttress digital skill sets required for functioning effectively in the digital economy. Additionally, the chapter examines the promising future of ICT and the importance of entrepreneurship. Challenges were identified to affect full ICT implementation by developing countries in the digital economy. The chapter concluded that ICT is a key determinant and contributor to economic development in many nations.*

## **INTRODUCTION**

In the last decades, innovations in the economy have taken a new dimension hitherto to previously practice. Thus, in the business environment where consistent change is inevitable, the 21<sup>st</sup> century has witnessed tremendous economic change due to technological innovations. A recent major technological innovation that has improved the digital economy is Information and Communication Technologies (ICTs). Information and Communication Technologies are often used as a general term to denote technologies used in the creation, storage, manipulation, access, and retrieval of information through telecommunications. Today, ICT continues to exist as a major constructive energetic force in the digital economy due to the numerous influences on the economy in this new digital age. It is not divulged that there has been a steady headway in ICTs utilization in libraries and information centers, and production of goods and services rapidly, which has continued to enhance performances and make productivity strong, as ICTs introduce new and better opportunities.

Globally, the world is evolving, which has forced the economy to undergo major advancement due to the ever fast-changes in ICTs and their usage in libraries and other sectors in the economy. These facilitate a global change, referred to as the “new economy”, also known as “digital economy”. The digital economy has significantly transformed libraries and business processes and created new digital information services and opportunities in the 21<sup>st</sup> century. This digital transformation, where ICTs are now used for a better and improved life, information service, and business, can be the grass root and foundation that imposed the new economy transformation. Therefore, the digital economy is a web economy built on digital technologies to improve libraries and information centers, people, businesses, and organizations. The foundation of the digital economy, as stated by Bukht and Heeks (2017), is ICT, while the backbone and cornerstone, as noted by Cassar, Heath, and Micallef (2020), is “hyper-connectivity”, which according to them, connotes, “Growing interconnectedness of people, organizations and machines that results from the internet, mobile technology, and the internet of things” p.2.

The digital economy is built upon two main network evolutions of “interconnectivity” and “interoperability” (Lovelock, 2018) which, has distinguished developing and developed countries; thus, developing countries are less advanced like most of the African countries and have a low level of ICTs development, low maturity attainment, minimal industrialization existence, and characterized by low-income level, in other hands, developed countries have advanced economy, infrastructures, industries, GDP, high living standard, education, and human development. No doubt, hyper-connectivity, therefore, contributed to the growth of the present-day new economy; it increases work efficiency, triggers innovation and invention, helps today’s global competitiveness, access to quality and global information, and quick retrieval of relevant information. Consequently, Information and Communication Technology remains a technology that supports the future growth and revolution in a digital economy. This chapter focuses on the conceptual nature of Information and Communication Technologies and the digital economy. This chapter elucidates the influence of ICT in a digital economy, the basic ingredients, and digital skill-set required to function effectively in the digital economy will be elucidated. The chapter will also discuss the future of Information and Communication Technologies in the digital economy, the necessity of developing entrepreneurship in a digital economy, and the challenges of Information and Communication Technologies application in developing countries in a digital economy.

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