

## Chapter 10

# The Online Education and Virtual Collaboration Model

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### ABSTRACT

*Worldwide, tech spending was approximately \$4 trillion in 2019. In 2020, all successful global universities are using a wide variety of information systems platforms to adapt to the global COVID-19 pandemic. Universities are using the rapid constant changes in information technology to alleviate the COVID-19 crisis. During the COVID-19 pandemic, almost all universities in North America, Europe, Australia, and New Zealand conducted classes through online and virtual instruction. Unfortunately, most universities in Nigeria/Africa are not able to adapt to the global COVID-19 pandemic, and universities in Nigeria in 2020 were completely closed for classes. To help address this issue, the authors conducted their research. In addition, using the stakeholder theory, they developed the online education and virtual collaboration model. The model provides insights and understanding on how to develop online courses and classes effectively and efficiently in Nigeria/Africa. The study has significant research and practical implications.*

### INTRODUCTION

For approximately two years, global firms, companies, universities, organizations, and governments are using a variety of information systems platforms to adapt to the global COVID-19 pandemic (Idemudia 2020). Kundu and Bej (2020) argue that COVID-19 brought social distancing, not mental distancing. The COVID-19 has affected the educational systems across the world most especially developing countries

DOI: 10.4018/978-1-7998-9418-6.ch010

in Africa. Daniel (2020) presents that COVID-19 is one of the greatest challenges that worldwide education systems have ever faced. In 2020, almost all the schools in the world were closed. For example, in May 2020, schools in approximately one hundred and ninety countries were closed (Giannini et al., 2020; UNESCO, 2020). Rogers and Sabarwal (2020) argue that during COVID-19, most governments in different parts of the world asked educational institutions to move traditional, face-to-face classes to virtual and online teaching. To date, because of COVID-19, online education is very popular because online education gives students the opportunity to attend and compare courses (Kundu and Bej 2020). Basilaia and Kvavadze (2020) discuss that some of the different education processes are TV broadcasts, video lectures, resources, online channels, online libraries, and guidelines. Kundu and Bej (2020) argue that during COVID-19, that shifting to online education was difficult to both technology savvy teachers and students. Worldwide, healthcare professionals and governments are using advanced information systems/technologies to aid in the testing, treatments, tracking, and decision makings relating to patients with COVID-19. To date, firms, organizations, governments, companies, and universities are using advance information technology to alleviate the effect of the COVID-19 global crisis (Idemudia 2020). Worldwide, to adapt to COVID-19, tech spending was approximately \$4 trillion in 2019 (Rosenbaum, 2019) and \$4.1 trillion in 2020 (Speed, 2021). The constant advancements in a wide range of information systems/information technology are affecting the traditional ways governments, companies, organizations, firms, and universities operates. Worldwide, both small and large universities are using information technology applications for better decision makings and strategic competitive advantages.

The top five largest companies in the world by profits, market capitalization, and sales are predominantly in the technology sector (Ventura, 2021; Ireland, 2020; InnovativeZone, 2021). The largest and the most profitable companies in the world are implementing information technology applications to get bigger and increase their profits, sales, and market shares (Ventura, 2021; Fortune, 2022; Jay, 2019). During the global COVID-19 pandemic in 2020 and 2021, almost all universities in the world, most especially the western world conducted classes through online and virtual formats. The COVID-19 global pandemic has forced universities worldwide to implement and use a wide range of information technology platforms/applications as competitive tools to enhance learning and understanding. Our study develops the model, online education and virtual collaboration model, that provide insights and understanding on how universities in Africa can adapt to the global COVID-19 pandemic. The constant information technology revolution has significantly helped students, faculty, staff, and administrations to adapt to the global COVID-19 pandemic within the university' environments.

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