


# Role of Technology Startups in Africa's Digital Ecosystem

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## INTRODUCTION

The era in which we live is dominated by technology. Technology has continued to revolutionize the way people interact with one another, as well as conduct the operations of business on a regular basis (Decaux, 2018, Ogunfuwa, 2018; Osuagwu, 2019). Small and big businesses need technology to thrive. Businesses are growing and expanding across countries due to technological advancements. It is technology that gives organizations the strength to spread their wings. Oak (2018), notes that if not for technology, complex industrial processes would not have been carried out, and large-scale production of goods would have been impossible. Growing businesses create employment opportunities for people and technology plays a big role in business growth.

Apart from helping to shape the way things are done, technology has brought innovations into service delivery thus enabling human society to transform to a technology driven world where almost everything is being automated. Technology automates the most complex of processes, be it in communication, education, medicine or any other industry. With the application of technology, critical and time-consuming processes can be executed with ease and in less time. Laborious and repetitive tasks are best done by machines. People do not have to slog as much as they would have had to, if not for technology. With automation came efficiency and speed. They save human effort and time to a great extent and make life easy and comfortable.

Human life and technology cannot be separated, hence society has a cyclical co-dependence on technology (Risto, 2000). However, technology has also caused humans concerns. Its poor application has resulted in the pollution of the environment and it has also caused serious threat to lives and society. This therefore calls for proper use of technology. The biggest challenge facing mankind is to determine the type of future they need to have and then create relevant technologies that will simplify the way things are done.

In the last few years in Africa, technology startups have been developing software solutions which companies and organizations are leveraging on to improve service delivery, as well as address societal challenges. On a large scale, these efforts are geared towards closing the technological divide between Africa and Europe. Experts have noted that the growth potential for technology in the African continent is huge, judging by the remarkable breakthrough these startups are making in addressing workplace issues and getting many youths meaningfully engaged (Aliogo, 2018, p.29; Essien, 2018,p.81).

In the African context, technology innovation is seen as an option out of poverty, and most technology hubs in the continent are providing communities with infrastructures to support home-grown innovations. Startups require less infrastructures and financial risk for rapid growth than big industries. These hubs are not only providing startups with the technical support and access to fast internet, and free training but they also provide professional and social networks in which these technology entrepreneurs can thrive.

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A report by social media week shows that regardless of the growth of internet usage in Africa since 2000, only a segment of the population (about 7 percent) have access to internet. Even with the increase in access to technology globally, the divide in knowledge and skill still limits the ability of developing countries to compete in the global market. The report also stated that the digital divide is the gap in the access to information and communication technologies between developed and developing countries or among different social groups (Aliogo, 2018). The divide is not limited to internet access but also to mobile phones, computers, radio and television. Access to information and computer technology is crucial to sustainable economic and social development as well as environmental protection.

A particular report cited by Aliogo (2018) noted that Africa is at the start of technological renaissance. The report said seven out of the 10 of the world's fastest growing internet populations are in Africa. This trend is expected to re-shape the entire economies of the continent as new companies would leapfrog established technology, ideas and infrastructure to grow. It also stated that internet penetration in the continent is just 29 percent which implies that the majority of growth and network effects are still to come.

There has been a boom in tech startups and funding in the continent. The rise reflects the rapidly developing tech sector in Africa. In 2016, Africa technology startups raised in record-breaking total of \$366.8m in investment, according to San Francisco headquartered venture capital firm Partech Ventures. To put this into perspective, tech companies across the continent raised \$276.5m in the previous year (2015). Partech Ventures data only includes deals higher than \$200,000 and excludes any grant or debt deals, and “megadeals” worth \$100m and over. Only three countries accounted for annual 80 percent of Africa's total funding, with Nigeria securing \$109m or 29.8 percent; South Africa receiving \$96m or 26.4 percent; and Kenya securing \$92m or 25.3 percent.

The average size of the deals struck in Africa by startups also increased year-on-year at every stage of investment, with series A funding, for example, increasing to around \$3.7m. Series A refers to a company's first significant round of venture capital financing. At the same time, the number of tech hubs in Africa rose to 310, with 173 accelerators and incubators recorded in 2016, according to the World Bank. In the previous year (2015), there were 117. The number of tech hubs rose from 310 to 442 in 2018.

The growth in Africa's technology sector came at a time when mobile internet adoption continued to grow rapidly, with the number of mobile internet subscribers increasing threefold in the last six years to over 300m unique users, according to the mobile operator's trade body GSMA. Additional 250m subscribers are expected by 2020. Mobile internet is the platform of choice in Africa due to its relatively low cost when compared to wireless broadband. The growing uptake in mobile technology has fuelled many of the innovative digital solutions and services emerging from the continent, and, as mobile infrastructure advances and the cost of smart devices falls, technology entrepreneurs are developing uniquely African technology solutions to African problems.

The objectives of the article are:

1. To identify the role technology startups are playing in Africa's digital ecosystem.
2. To identify the challenges confronting African technology startups and how to solve them.
3. To recommend ways to promote the growth and development of technology startups in the continent.

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