



Information Technology and Entrepreneurship Development in Africa

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Abstract: *This paper aimed to provide an overview of how information technology has an impact on entrepreneurship development in Africa. Findings from empirical studies led into the conclusion that there is a positive relationship between the use of information technology and the development of entrepreneurship in Africa. The paper recommends that governments may provide enough funds to the entrepreneurs in order to ensure the new technologies are made use of effectively by all entrepreneurs which in turn will facilitate the entrepreneurial success.*

Keywords: Information technology, entrepreneurship, communication technologies, globalization

Introduction

Technology parks are a strategic tool to spill over knowledge and skills. The rise of technology parks around the world and especially in developing countries, has addressed concerns on the technopreneurial activity and its impact on developing countries, where private and public sectors are joining efforts to create a sustainable ecosystem for sustainable entrepreneurship. While entrepreneurship plays an important role in economic growth, job creation and social welfare, new technology has created significant changes in accessing information and has provided more robust communication infrastructure. As technology has affected many issues such as education, entrepreneurship has undoubtedly benefited well from it (Tavakoli, 2013).

Omuruyi, Olamide, Gomolemo and Donath's (2017) study in Sub-Sahara Africa presented the fact that entrepreneurship is one of the factors that influence the economy of a nation either directly or indirectly. The paper argued that entrepreneurship is positively correlated with economic growth but did not reveal whether information technology propels the entrepreneurial venture. Eneji, Nandy, Gukat and Odey (2018) carried out a study in Nigeria about technology innovation and sustainable entrepreneurship. The study sought to establish the impact of technology on sustainable entrepreneurship using the survey method. The findings showed that the level of technology

innovation in Nigeria is low. As such, entrepreneurship was weak.

Eneji, Nandy, Gukat and Odey (2018) further defined information technology as a means that is used in companies to support communication. Network (intranet and internet) and email as part of technology play a key role in the organisational communication internally as well as externally. They further hold that information technology can assist in the development of products or processes by applying knowledge of programming, web, database, human computer interaction, networking and security.

Hsieh (2016) alluded that entrepreneurship development is a dynamic activity which helps the entrepreneur to bring changes in the process of production. It is a mental attitude to foresee risk and uncertainty with a view to achieve certain strong motives. Scholars like Sharma (2019) added that entrepreneurship development is a program, method or process that aims to identify, nurture, support and grow the talents at a bigger level so that it brings new business leaders in the market to increase employment chances.

Ahmed and Nwankwo (2013) wrote on the influence of technology toward employment opportunities and finalized that the importance of entrepreneurship cannot be overemphasized especially among the Developing Countries due to the fact that entrepreneurship plays a great deal in fostering employment opportunities.

Nkechi, Ikechukwu and Okechukwu (2012) commented that the African continent has different countries which have numerous business and investment potentials due to the abundant, vibrant and dynamic human and natural resources it possesses. Tapping these resources requires the ability to identify potentially useful and economically viable fields of endeavours. They further realized that Africans have made their marks in diverse fields such as science, technology, academics, business and entertainment which if used properly can enhance the entrepreneurship success.

Information technology determines the quality performance of entrepreneurs where new products and production techniques are developed (Ebiringa, 2012). The author further went on to say that in Nigeria, for instance, entrepreneurship development and innovation have been manifested in all aspects of the economy via micro business, micro finance, small and medium industries, information/telecom services, personal services in food vending/restaurant, garments making, embroidering, agricultural produce, music and film production.

According to Alderete (2017), mobile technology and services are the key drivers of the information society. Together with mobile networks and applications, they have formed an ecosystem that becomes the most dynamic platform for bringing information and communication technologies (ICT) benefits to our economy and society (Carayannis, Popescu, Sipp, & Stewart., 2006; Tiawuti, 2013). ICT is an enabling technology that can drive radical changes in the capabilities of entrepreneurs (Ahmed & Nwankwo, 2013). The information society has brought the ICT benefits to the newly born firms. The value of ICT extends far beyond direct economic benefits. ICT is a driving force in the acceleration of entrepreneurship and innovation, making it easier to identify, develop, create and disseminate new products and services (INTEL 2012).

Emmanuel and Sife (2008) observed that positive effects of IT have continually been noted in business, production, education, politics, governance, culture and other aspect of human life. This view is corroborated by Agboola (2017) that the growing rate of Information Technology has influenced development at an exponential growth rate. Highlighting the impact of Information Technology, Rao, Metts and Mong (2003) observed that the 1990s witnessed the proliferation and

hyper growth of technologies, which create a global and cost-effective platform for business.

The creation of conditions for entrepreneurial discovery and action is one major implication of ICT (Ahmed & Nwankwo, 2013). Some of the ways in which ICT supports entrepreneurship and innovation include wider interconnectedness and collaboration, lower cost of entry for new entrepreneurs, enhanced ability of entrepreneurs to develop new business models, products, services and processes, new tools to create, organize, store and transmit information as well as fostering access to regional and international markets (Alderete, 2017). The accessibility of ICT makes it increasingly easier for remote locals to participate in global commerce, diminishing geographical, political and cultural boundaries (Carayannis et al. 2006). By reducing geographic constraints, firms across the countries can run their business despite of location.

Moreover, information access is a critical tool for enterprises competitiveness. Mobile devices increase the speed of management and business, since users can immediately respond to market changes and problems, thus achieving better profits (Alderete, 2017). ICT is sometimes the only medium with which businesses can access the market information they need to develop entrepreneurship opportunities (Polo 2013). Not only has mobile broadband emerged over the past decade to meaningfully extend the reach of the Internet, it has actually become the primary method of access for people around the world (Bold and Davidson 2012).

Abbas (2018) alluded that information technology can be more beneficial for women in rural areas as it enables them to add to the family income while taking care of their farms, homes and livestock. Moreover, Ogundele and Abiola (2006) revealed that the wide-spread level of unemployment in the African continent could have been minimized if Africans of varying age groups and backgrounds were exposed to information technology, entrepreneurship education and training.

Entrepreneurship involves more than just increasing per capital output and income. It involves initiating and constructing change in the structure of business and society. This change is accompanied by growth and increased output which allow more wealth to be divided by the various participants (Akande & Yinus, 2013). One theory of economic growth depicts innovation as the key aspect, not only in developing new products or service for the market

but also in stimulating investment interest in the new ventures being created (Agboola, 2017).

Majority of those who venture into Micro, Small and Medium Enterprises (MSMEs) do so because of their need to make money and in almost all cases, such entrepreneurs lack relevant and adequate information about the businesses they engage in (Abbas, 2018). The vast growth of information technology in most countries presents a challenge to entrepreneurs who have not embraced technology, and who are now finding it hard to remain relevant in the competitive business environment. For existing and potential MSMEs to survive and be relevant, they need to change business environment and embrace technology.

Entrepreneurs with more years of work experience in the ICT sector tend to have faster-growing businesses. Work experience tends to help entrepreneurs directly through improving knowledge and firm capabilities, and indirectly, through networks and contacts. Nitcher and Goldmark (2009) stated that work experience is particularly important if it occurred within the same sector. In Africa, some of the growing entrepreneurs tend to come from having been previously employed as managers in the same or similar sector, often by a foreign firm (Parker 1995).

According to Tavakoli, (2013), information technology with various features and capabilities has a remarkable flexibility in the field of entrepreneurship. In an overview, some of these features can be increased speed and improved accuracy. Alderete (2017) stated that there could be information entrepreneurship at different levels of hardware and software. In each of these levels, there are many opportunities for entrepreneurship that need support of venture capital and entrepreneurial effort (Tavakoli, 2013).

Tavakoli, (2013) alluded that information technology can contribute to entrepreneurship development in Africa by giving information transparency, market competitiveness and by increasing exchange rate. The researcher furthered on to say that, information technology can minimise rentals as people can work from home thereby minimising criminal acts where goods are stolen. Information technology contributes to e-commerce where entrepreneurs can buy and sell goods and services online through platforms like E-bay (Eneji, Nandy, Gukat, & Odey., 2018). Goods can also be imported or exported.

The majority of the previous studies explored (1) the role of entrepreneurship innovation on economic growth and (2) the impact of ICT and other variables of entrepreneurship. Empirical research which focused on the impact of information technology on the entrepreneurship indicates a positive relationship between innovation and the entrepreneurship development. In Tunisia, a study by Ghodbane (2016), using the random effects model indicated cross-cultural influences of ICT infrastructure. Another study was carried out by Asongu and Tchamyou (2016) in fifty three African countries and concluded that doing business through mechanisms of trade globalization had positive effects. The study of Vissa and Bhagavatula (2012) concluded that entrepreneurs who adopt information technology to their business had an advantage as compared to their competitors who did not. In Nigeria, the study of Akande (2015) revealed that Information Technology (IT) has a positive influence on Entrepreneurial operations. In Bangladesh, using secondary data, Chowdhury (2017) found that, there was a positive relationship between ICT and the development of new businesses.

Using regression analysis, Varis and Littunen (2010) established a positive relationship between the use of external information sources (exhibitions, fairs, internet, media, etc.) and the introduction of novel product innovations. The study further established a positive relationship with the firms' growth and innovations.

Conclusions and Recommendations

The study concludes that information technology has a positive impact on the entrepreneurship development as it improves product quality which subsequently enhances the entrepreneurial success. Therefore, engaging the information technology activities will bring success in the entrepreneurial developments in the African continent.

It is recommended that governments in Africa may provide enough funds to the entrepreneurs in order to ensure the new technologies are made use of effectively by all entrepreneurs which in turn will facilitate the entrepreneurial success. Policy makers need to recognize the essence of information technology toward entrepreneurship success. Entrepreneurs need education on how to start new businesses and information about the importance of ICT and how it can be used to increase the operational efficiency.

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