

Digital Enterprise in an Emerging Economy: A Panacea for Vocational and Technology Education Graduates Unemployment in Nigeria

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ABSTRACT

The rapid advancement in technology which leads to digitalization and development of information and communication technologies (ICTs) is creating vast opportunities through digital entrepreneurship and other different types of entrepreneurial activities in emerging economies. However, very few researches were conducted in this area for ample understanding of the nature of digital entrepreneurship in the new and emerging economies. So far the connection between the up-and-coming fields of digital entrepreneurship has not been academically investigated in detail. This study aims at closing this research gap. It represents a detailed literature review of the emerging digital entrepreneurship using a structured analysis of the current state of research. The contents of this work is based on a literature analysis of scientific publications on results from an extensive database search on the role, opportunities and challenges of digital entrepreneurship. To concretize the understanding of the digital entrepreneurship in the existing literature, its characteristics are specified along with concrete application areas as a synthesis. These are then analyzed with regard to its adequacy and applicability as a strategy for reducing unemployment for graduates of business education in Nigeria. The study clearly specifies that digital entrepreneurship is totally absent in vocational and technology education curriculum and recommended that Government should support the creation of digital entrepreneurship at all levels of education so as to encourage graduates to tap the various existing digital entrepreneurship opportunities.
Keywords: Digital entrepreneurship, ICTs, Vocational and Technology Education, Unemployment.

INTRODUCTION

Globalization of ICTs and advances in digitalization is changing the international business landscape, transforming business practices and creating opportunities for new types of entrepreneurial activities. One of such type of entrepreneurial activities is digital entrepreneurship which is defined as a new business creation opportunity generated by ICTs such as internet, mobile technology, social

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computing and digital platforms (Oestreicher-Singer and Zdalmanson, 2013). Javalgi, Todd, Johnston and Granot (2012) note that despite the various evidences of increasing in the number of small digital enterprises, the academic enquiry and research to date has merely skimmed the surface as to how small internet firms in emerging markets develop and grow which can serve as a source of employment generation, thereby reducing unemployment among the graduates of vocational and technology education (VTE) in Nigeria. Most of the existing researches in many African countries have so far focus on small businesses that simply use ICTs to improve their business performance (Gathege and Moraa, 2013) instead of deepening research on the use of digital entrepreneurship in order to pave way to reduce the rate of persistent increase of graduate unemployment in Nigeria. This study is therefore a step in the right direction.

Unemployment and the place of digital technology

The term unemployment denotes a condition of joblessness or lack of employment. In other words, anyone who is fit and available to work but fails to get one may be considered as being unemployed for the concerned period (Olubukola, 2013). In the work of Arosanyin (2011), unemployment and poverty are two of the challenges facing the Nigerian economy. Ishola (2008) notes that in 2003, Nigerian's unemployment rate declined substantially to 2.3 percent. This decline was attributed to the various government efforts aimed at addressing the problem through poverty alleviation programmes. He further notes that the decline also pointed to an increased number of people who engaged in other business activities. Ishola (2008) observes that, unemployment as one of the macroeconomic problems could be reduced through creative business ideas and entrepreneurship if well supported and managed. More so, Olubukola (2013) states that the rapid rise in the country's unemployment rate has become a major source of concern. Several school leavers and employable adults are either finding it difficult to secure employment or are laid off work for one reason or the other. Akin (2013) argues that the challenges to sustainable youth employment are multi-dimensional. They encompass economic, social, political and cultural issues which include: weak economic, political and social institutions, accountability and transparency in governance, high cost of governance reducing available resources to support job-creation opportunities for young people at Federal and State level, jobless economic growth, etc.

Unemployment is one of the major problems that face every developing economy in the 21st century. This has become a global concern and more direct consequences on the youth who would have been the next generation of potentially productive economic and social sectors. In addition, digital entrepreneurship go beyond simply adapting and using ICTs but it also trigger entrepreneurial activities and the infrastructure that support stakeholders interactions (Lusch and Nambisan, 2015).

Furthermore, Ewuzie (2012) asserts that the harsh economic situation in Nigeria today, indicates that the upcoming generations of VTE graduates when given proper orientation and entrepreneurial education digitally can become successful here in Nigeria. In fact different kinds of businesses through digital entrepreneurial creativity can be developed from the combination of the concept of entrepreneurship and information and communication technology and one of them can be digital entrepreneurship. The Internet combined with the information and communication technology can serve as a tool for business formation by utilizing opportunities digitally which can be regarded as digital entrepreneurship. Therefore the developing digital economy and the movement towards self-employment is challenging to VTE graduates to utilize such type of entrepreneurship to create self-employment and become *in tandem* with business needs of the 21st century prerequisite.

These trends of internet and related developments in ICTs have generated new businesses and the way organizations performed their activities as well as significantly influenced their existing established businesses which call for a fundamental change that will provide digital initiative by the graduates of VTE in Nigerian tertiary institutions through awareness of the existing digital entrepreneurship development opportunities in order to progress in line with the emerging digital environment and the economy as practised in the industrialized world .

Digital technology, and information technologies are globally and radically changing the face of business and organizations by changing the ways business and organizational activities are performed and the persistent general outcry in rise of youth unemployment rate in Nigeria necessitate the conduct of this research which can provide hands on experience in digital entrepreneurship for self-employment and other information and communication technology knowledge for efficiency in job performance (Attah, Audu and Haruna, 2014). Also, the traditional curriculum of VTE does not provide the necessary skills to analyze self-employment implications due to the proliferation of new different digital technology media (Cliff, 2011). No doubt the digital/electronic environment is posing a challenging environment for vocational and technology education students and organizational activities due to the fast acceleration and availability of technology which is shaping the economy with different forms of distribution, marketing, selling and arranging work are becoming really observable (Hassan and Harris, 2009). Although, the federal government has emphasized the use of VTE to prepare potential graduates with appropriate skills needed not only for employment, but also for self-reliance and ability to employ others. However, it appears that students from tertiary institutions in Nigeria are not taking the advantage of VTE programme in equipping themselves with appropriate skills for both employment and self-reliance. Hassan and Harris reveal that the National Bureau of Statistics (NBS) in May 2016 report that there have been six consecutive

rise in the unemployment rate from 4th quarter of 2014 (6.4%), 1st quarter of 2015 (7.5%), 2nd quarter of 2015 (8.2%), 3rd quarter of 2015 (9.9%), 4th quarter of 2015 (10.4%) and 1st quarter of 2016 (12.1%).

Digital Enterprise in an emerging economy

Digital entrepreneurship ventures range from large established firms that buy and sell goods and services, develop and market product and services and networking technologies to small start-up firms, that use ICTs to undertake their business activities (Rosenbaum and Cronin, 2013). This study is particularly interested in small start-up digital ventures. This include ventures operating in the ICT sector (e.g. online accounting, wifi-hotspot, phone backup, artificial intelligence software, software installations, marketing, advertisement, and consultancy services etc) (Vasilchenko and Morrish, 2011), social computing websites (e.g. sales of recharge cards) (Oestreicher-Singer and Zalmanson, 2013) and small mobile and internet-enabled businesses (e.g. classification/cataloguing of specialised information and buying and selling of goods and services in the marketplace online) (Javalgi, Todd, Johnston and Granot, 2012).

Market orientation, creativity, wide focus on tracking and responding to customer needs and competitor behaviour is important to individuals and most organizations, (Slater and Naver, 2015) but it may prove even more important in the context of digital entrepreneurship. In the context of digital entrepreneurship, this phenomenon may be particularly common because of the necessary emphasis on technology. Once the idea of a new digital venture is mastered the technology needed to operate the business which is not a small task should be known in order to be successful, disregarding the principles of market orientation, which in turn is likely to lead to the failure of the new venture.

Digital entrepreneurship is still at an early stage in emerging markets, which suggest a research need to focus on newly-created digital enterprises. It is interesting to note that ICT competencies and market orientation is required for success of digital entrepreneurship. ICT competencies are one of the core determinants of the success of a digital entrepreneurship.

Ashurst, Cragg and Herring (2012) identify four important ICT competencies that enable an individual with digital entrepreneurship mindset to successfully innovate and integrate business processes that lead to value creation, Information Technology (IT) leadership, business systems thinking, architecture planning, and making technology work. Reuber and Fische (2011) identify three internet-related level required for digital entrepreneurship operation which include: ICT resources that determine success in the internet-enabled markets, online technological capabilities (integrating web applications, customize online experience for particular markets and technological opportunism) as well as access to information about buyers, suppliers and partners.

Ashurst, Cragg and Herring (2012) suggest that because most IT competencies research has focused on large firms, applying the competencies to new businesses must be treated with caution. Therefore, focus must be made on taking advantage of ICT education and training in creating digital entrepreneurship businesses. Also, in terms of market orientation, Hair, Wetsch, Hull, Perotti and Hung (2012) suggest that any new digital venture that has identified and mastered the technology needed to undertake and define business activity must grapple with market orientation as another central determinant of success in digital entrepreneurship, with success defined in terms of creating a new digital business. Here market orientation is defined as the ways in which a digital entrepreneur focuses on customer and other stakeholder needs in their target market (Hair *et al.* 2012). They also identify three determinants of market orientation in digital entrepreneurship:

- i) Technological skills to sustain the digital venture,
- ii) Tools for managing an information-rich business environment and knowledge of the wider and
- iii) More diverse marketplace available to digital enterprises compared to non-digital enterprise.

Onetti, Zucchella, Jones, McDougall-Covin, (2012) discuss how new young ventures developed internet-based offerings by articulating various features and characteristics of e-business such as web-based application, b-webs, e-mail, telephone, fax and other internet digital activities. Once a digital entrepreneur has developed the right ICT competence and market orientation, another challenge is to build a business model that can generate income to ensure survival and profit maximisation (Dasgupta, 2013; Oestreicher-Singer and Zalmanson, 2013). Bengtsson and Johansson (2014) suggest that due to liabilities of smallness and newness of digital entrepreneurship, new small digital businesses try to enter the market by collaborating with established partners (e.g. mobile network operators) to create legitimacy and secure the status of ‘best-of-breed’ product providers in the market’. Lastly, potential digital entrepreneurs also have to deal with country-specific challenges facing all other ventures in the country such as access to finance, lengthy bureaucracy for setting up and operating a new business (Pougue and Bernasconi, 2013).

Digital entrepreneurship is a subcategory of entrepreneurship in which some or all of what would be physical in a traditional organization has been digitized. Thus, digital entrepreneurship implies an entrepreneurship that is associated with some degree of digital goods or services, or with other forms of digital activities. Given the rapid rise of digital activities among all firms, it seems likely that digital entrepreneurship will become more and more common, suggesting the need for a deeper understanding of this phenomenon. To better understand digital entrepreneurship, a typology must be developed to distinguish the degree of digitalization that pervades any business environment. A beginning

point for such a typology should explore the potential of digitalization within the activities, processes, boundaries and relationship associated with the firm, in other words, the firm's value chain. The degree of business digitalization may be derived through:

- (1) The digital nature of a firm's goods or services
- (2) The digital distribution potential of a good or service
- (3) The potential digital interactions with key external stakeholders within the value chain, and
- (4) The digital potential of virtual internal activities associated with a firm's operation

These four elements serve as a means to define the degree of digitalization associated with specific firms and industries. Thus, digital entrepreneurship implies entrepreneurship, or new value creation, involving digital goods or services, digital distribution, a digital workplace, a digital marketplace, or some combination of these. This entrepreneurship activity relies on information technology to create the market, distribute, transform or (in the case of digital services) perform the product. While information technology is associated with many organizations productivity, such as business performance and customer values. It serves as the basic infrastructure in digital entrepreneurship. Without information technology, digital entrepreneurs would be unable to deliver their services and in some cases, the product or service itself could not exist without information technology. Digital entrepreneurship thus exists on two disciplines:

- (1) Management (particularly entrepreneurship) and
- (2) Information systems.

Digital Workplace

The reach of the Internet also allows digital entrepreneurship to take advantage of potential employees and partnership all over the globe without forcing anyone to relocate. Global virtual teams can offer considerable benefits to the digital entrepreneurship, making it easier to locate and hire talent, harnessing cultural diversity, importing resource utilization and increasing flexibility and responsiveness (Duart and Snyder, 2015) however, there is a potential cost as well. Managing virtual teams presents challenges very different from those experienced by normal managers (Kayworth and Leidner, 2000) and digital entrepreneurs who take advantage of the digital workplace, as such, they should be aware of these challenges.

The definitions of digital entrepreneurship can provide several insights into its concept. Davidson and Vaast (2010) define digital entrepreneurship as the practice of pursuing "new venture opportunities presented by new media and internet technologies". It is also similar to traditional entrepreneurship in the sense that "digital ventures aim at generating a financial profit and are directly inscribed into the economic realm, such as creation of a new company or

commercialization of an innovation”. In digital entrepreneurship “some or all the entrepreneurial venture takes place digitally instead of in more traditional formats. Digital enterprises are different from traditional entrepreneurial ventures because they have different business models and can pursue their products, marketing and distribution activities using digital platforms (Hair *et al.*, 2012).

Structural Factors for Digital Entrepreneurship

Governmental Rules: Laws and supports of government can develop digital entrepreneurship and decrease its barriers. Instability in policies of government and inconsistency between policies and policy interventions has more effect on formation and continuity of entrepreneurship activities. Herein, government can play three different roles towards creating and developing digital entrepreneurship: (1) Supporting role (2) Cognitional role and (3) Policy making role.

Electronic Readiness Level: E-readiness is a measure of the quality of a country’s ICT infrastructure and the ability of its consumers, businesses firms and governments to use ICT to their benefit (Economist Intelligence Unit, 2009). When a country uses ICT to conduct more of its activities, the economy can become more transparent and efficient. Also, in the other way, the electronic readiness is a collection of capabilities that are available in society to create or develop the infrastructure of information and communication technology and increasing their capacity for hunting the valuable opportunities. So, electronic readiness level can play two different roles in creating and developing digital entrepreneurship:

- (1) Infrastructure of information and communication technology, and
- (2) Information and communication technology applications

CONCLUSION AND RECOMMENDATIONS

Digital entrepreneurship in emerging economies is a nascent field which needs to be radically researched on in order to bring more awareness into its roles, opportunities and challenges associated with its development and implementation by young graduates of business education through identifying and pursuing its entrepreneurial opportunities offered by the development of ICTs. It constitutes new and various opportunities for graduates to be entrepreneurs through creative thinking of various opportunities to be utilised. Importantly, innovative and niche-market activities and business opportunities in the field of digital entrepreneurship are options for entrepreneurial success which is so far not explored by many young graduates of business education.

Although the study points out the significant impact of digital entrepreneurship, what it means, and the structural factors that can be focused for developing digital entrepreneurship in order to combat vocational and

technology education graduates unemployment, it recommends thus:

- (i) Government should support the creation of digital entrepreneurship at all levels of education so as to encourage graduates to tap the various existing digital entrepreneurship opportunities.
- (ii) ICT Infrastructural facilities should be provided in order to pave a way of doing many internet and other digital contents businesses.
- (iii) Compulsory ICT training in all tertiary institutions offering vocational and technology education courses should be carried out so as to broaden the business education students professional and vocational digital entrepreneurship skills for self-reliance, developing their digital enterprises critical thinking and better performance in business ventures.
- (iv) Appropriate government agency as a matter of urgency should direct the inclusion of digital entrepreneurship in business education curriculum in all Nigerian tertiary institutions so as to broaden employment opportunities for the teeming unemployed business education graduates.

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