

The Challenges of Young I.C.T Entrepreneur in Developing Countries: Case Study – Ghana

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ABSTRACT

This paper seeks to contribute to the ongoing research on the challenges and development of young Information & Communication Technology (I.C.T) entrepreneurs in today's technologically advanced world and to suggest remedies to these challenges. The scope of this research focuses on entrepreneurs in developing countries and the contribution of various stakeholders in empowering young entrepreneurs, achieve their dreams.

General Terms

Employment, Challenges, stakeholders

Keywords

Entrepreneur, S.M.E, 3-E-D, I.C.T

1. INTRODUCTION

People living in developing countries are becoming more familiar with ICT. It has become an essential tool for the economic growth and advancement of many countries. ICT refers to 'the technology that enables communication and the electronic capture, processing, and transmission of Information' (Parliamentary Office of Science & Technology 2006). We also define I.C.T as a tool that facilitates the sharing of electronic data and exploit resources for the efficient and effective performance of tasks. This paper recognizes I.C.T as the engine of growth for industries in this 21st century. It is on this backdrop that the impacts of I.C.T on the lives of people, the world over, have been received as an acceptable phenomenon in any growing economy. More and more people now find their daily lives directly connected to I.C.T, notwithstanding the geographic location or status, compared to some years ago. Recent survey conducted by the British Broadcasting Corporation across Europe in 2011

showed that, un-tricted access to internet and technology is synonymous to human rights requirement which must be guaranteed (courtesy BBC). Entrepreneurship on the other hand is the capacity of individual(s) to initiate a novel business ideas in areas not usually ventured into and ready to accept the challenges that comes along with it. Developing countries on the other hand, are extremely difficult places to do business; worse of all, to even dream of becoming an entrepreneur. Meanwhile, the challenges of entrepreneurs are not the same in all developing countries. It is even more difficult when the odds go against you i.e. when you fail to secure any support in developing your ideas.

The challenges emanate from capital to kick-start the innovation, the financial support from institutions that will

be willing to commit with flexible re-payment terms, lack of policy framework to provide assistance to local entrepreneurs because of their peculiar challenges, lack of institutional independence in the award of projects and lack of resources needed to execute projects. There are factors that also contribute to the challenges that Young I.C.T entrepreneurs go through which is worth examining. Some of which include the availability of high skill labour, the economic situation, the culture of developing countries, the entrepreneurial capacity of the people among others.

In as much as we would like to address the challenges of I.C.T entrepreneurs, it is imperative however that we also suggest some concrete measures in remedying the current situation we, in developing countries, find ourselves. We technically assess the impact of stakeholders who have a direct responsibility to empower young I.C.T entrepreneurs to achieve their set target. We therefore introduce the 3-E-D Module (Ansong et al) which captures areas such as Educational infrastructure policy, Employment prospects and Employment criterion required to become an entrepreneur.

Organisation: I.C.T & Entrepreneurship where identification of the key fundamental issues that discourage young graduates from becoming entrepreneurs is captured in section II. The next two consecutive sections analyzes the challenges as well as the factors, which are the direct and indirect effect respectively, which confronts young I.C.T entrepreneurs in developing economies from holding on to their dreams and the way forward and further presents the 3-E-D Module in providing permanent solution to the challenges of young I.C.T entrepreneurs in developing countries by bringing together all stakeholders. Section V deals with the Young I.C.T Entrepreneurship – The Ghanaian Experience and with VI concluding the research.

2. I.C.T & ENTREPRENEURSHIP

The role of I.C.T and job creation to the youth in developing countries especially, cannot just be over emphasized. I.C.T can facilitate developing countries combat the several socio-economic challenges confronting them. Increasing access to information, through the power of the internet infrastructure, and creation of several innovative tools and accessories, could create several opportunities which can be exploited by entrepreneurs. The traditional mass media (radio, television and print media), we all agree are fundamental in information dissemination especially in developing economies. In recent years 'new' ICT, such as mobile phones and the internet (and associated applications such as 'VOIP', transmitting telephone calls over the internet) have become available to

growing numbers worldwide. The most rapid growth is in mobile phone usage. Total (fixed and mobile) telephone access in developing countries increased from 2% in 1991 to 31% in 2004. Internet usage has also grown rapidly: from 0.03% of developing country inhabitants in 1994 to 6.7% in 2004. The latest statistics however has shot up to over 10% on average. However, there are wide disparities between developing countries (Parliamentary office in Science & Technology 2006).

The full potential benefits of I.C.T in many developing countries are not fully realized. This could be partly attributed to the socio-economic barriers within countries and between countries. Notable among such issues include the unavailability of I.C.T infrastructure in most rural areas in many developing countries and the level of poverty. In Ghana for instance, the growth of I.C.T for 2011 grew by 10.5% (Courtesy Budget of Ghana 2012). This however, is not a true reflection in every part of the country. While some regions in the country grew by 5%, other regions even grew higher than the national average.

The root cause of this problem is due to our centralised governance system since the colonial periods in Africa. Therefore, big businesses and organizations focus on the main city centres because of the proximity to resources and infrastructures including electricity, telephone access, internet, government ministries & agencies, and highly skilled human resource base among others compelling most importantly, technologically astute labour workforce to move to urban areas (rural urban migration) in search of jobs. However, I.C.T entrepreneurs in developing countries, depend on technologically inclined organizations, companies, S.M.E's and individuals to market their products. Moreover, the availability of resources and infrastructures for smooth operation are also critical.

The challenges of young graduate entrepreneurs begin with the choice of skills training and career path (developing a business idea), which culminate into the implementation of those ideas. This is a difficult moment to the young potential entrepreneur because parents and guardians occasionally wish to have a say in the choice of a career path sometimes against the individual's own interest. Furthermore, the challenges of I.C.T graduates, that kills entrepreneurial spirit begins when they are oriented from first day at their respective institutions about the need to make the best grades academically instead of being inspired to be practical and innovative on applying the knowledge acquired in their training to exploit opportunities in the society and country in general, in solving problems. The second stage of choosing a career also comes with its own challenges. Pressure from the family and society are mounted on that prospective entrepreneur, to choose I.C.T programs which can easily secure them jobs in companies and institutions rather than being creative in their interest, to create one on their own. Those who remain resolute to their call of becoming entrepreneurs are even faced with more difficult challenges including capital, support, and policy framework among other things in successfully executing their plans.

The next section of this research focuses on the various challenges of young I.C.T entrepreneurs, which could have direct negative effects on their innovation in establishing their own S.M.E. We shall also look at factors of I.C.T entrepreneurship in developing economies. This has to do with the indirect effects of the issues that could affect the I.C.T entrepreneur from successfully executing their ideas.

3. CHALLENGES OF YOUNG I.C.T ENTREPRENEURS

The challenges of young I.C.T entrepreneurs are generally considered as the issues that directly affects I.C.T entrepreneurs in developing countries. The fundamental problem to most of these challenges could be attributed to the socio-economic situation in developing countries [2, 6]. We shall however address these challenges in two parts. Basically, we begin with the general challenges before proceeding to the unique challenges suffered by I.C.T entrepreneurs.

3.1 General Challenges of Young I.C.T Entrepreneurs

The first of such general discourse is on the capital to kick-start the ideas which are common to most entrepreneurs and fresh graduates, we all acknowledge, lack the capital to implement the business ideas. Meanwhile, the financial institutions are not also ready to commit financial resources to 'ideas' which they consider to be abstract and could take a long period to be recouped, other than 'real' business in terms of 'buy and sell'. The main reason offered by these financial institutions in our interview suggest that, because of the high interest rate and high loan defaults in developing countries, therefore, they commit to business where there are direct cash inflows to protect their investment. The second general challenge of young I.C.T entrepreneur is the high rate of corruption in most developing countries. Corruption has become so endemic

and deep in the social fibre of our economy so much that, when people do not bribe their way out in doing business, they do not receive anything in return, which always put young entrepreneurs at a disadvantage. Bureaucracy in most institutions in the developing countries has a huge role to play in the corruption suffered by most developing economies. Even though the Ghanaian situation on corruption is relatively encouraging compared with most developing countries, we still believe there is more room for improvement (Corruption Perception Index 2011). Another issue tied to corruption is nepotism where one needs to know somebody high up to be considered to bid for project.

3.2 Challenges peculiar to Young I.C.T Entrepreneurs

First of all, many I.C.T entrepreneurs are not protected by any policy framework by the state to provide them with protection. A major concern raised in this area is the lack of legal framework against piracy and intellectual property theft. Referencing the Ghanaian situation as a case study, the 'Data Protection Bill' which seeks to, among other things, make intellectual theft a crime has been at the nations legislature for over four years now without passing into law. These therefore make state security agencies powerless to go to the aid of these vulnerable entrepreneurs. Finally, the difficulty in buying resources such as software applications, utilities and other resources are very difficult to come by in most developing countries e.g. agents of multi-national software companies are nonexistent and one have to rely on open source to develop software for companies and institutions. The alternative to the latest and free open source utilities from abroad use to be with online purchasing, using credit cards. However, recently development of credit card theft and other cybercrime on the internet has led to the blacklist of many countries, most of whom are from the developing countries, are now making it almost impossible to buy online. Sometimes, young I.C.T entrepreneurs rely on trial versions

of utilities which may be limited to just some few parts of the entire applications.

4. FACTORS AFFECTING YOUNG I.C.T ENTREPRENEURS

The factors which affect young I.C.T entrepreneurs have to do with issues which have an indirect consequence on young entrepreneurs. These include the availability of highly skilled labour workforce who are proficient with latest technologies. When the human resource base of business organizations are not technologically inclined, they are therefore not encouraged that much to patronise novel technological tools to improve their working performance. Secondly, our interactions with S.M.E's also indicated that, the socio-economic factors in developing countries make it difficult for business organizations to invest in I.C.T based tools which may not generate a direct return on investment in the short term and therefore finds it to be profligate spending.

Moreover, the culture of the people also does have a pronounced effect on the entrepreneurial building capacity e.g. in Ghana there is huge obsession for foreign products compared with local products. The situation is even more preposterous when people still decide to choose foreign products when the same quality is available locally. Lack of role models in I.C.T based areas in developing countries were mostly discouraging until recent times when few names began to come out. Above all, the method of taught programs at the various tertiary institutions in the sub-region has a serious outcome. This shall however be discussed in details in the next section when we deal with the 3-E-D module.

4.1 3-E-D Module

I.C.T graduate challenges can only be tackled head-on if we decide to address it holistically. We therefore referred this holistic approach as the 3-E-D approach. This refers to the 3-E-Dimensional approach. This includes Educational Facilities, Employment Prospects and Enrolment criterion for those job prospects. These three dimensions put together can give a comprehensive solution to the problem of I.C.T graduate unemployment.

4.2 Educational Facilities

This scope is not just limited to the universities, polytechnics and training centres but also, cover areas such as governmental support in education, funding, and the provision of resources among others to enhance the capacities of the various universities and other institutions. Governmental support in the sub-region in the area of funding research activities must be explicit and in conformance with the respective country's I.C.T policy interest, which honestly speaking, is ambiguous so much that, it does not even conform to our needs in the sub-region.

Studies have shown that Universities in most developing countries have not been challenged to meet their respective I.C.T policies because of lack of awareness [5]. Our educational experiences in India, China and Europe at least shows that, scientists and engineers in those countries, are given the requisite funding and support to sensitive and high interest areas in technology including research and resource materials. This therefore lays enormous challenge in those countries institutions to provide the much needed innovations that they need to industrialize those countries in the area of technology [2].

The program curriculum in university education in the developing countries is focused on intelligence and not

creativity. One of the vital institutions required for this to be successful is the state agencies mandated to monitor and supervise the working and operations of the various universities. In Ghana for instance, the National Accreditation Board (NAB) is the statutory body mandated to perform those duties. The agency must be empowered to raise and maintain the standard across the universities to churn out the right calibre of graduates with the requisite skills to innovate, manage and maintain the latest technologies that will be implemented.

Finally, the various universities should also be encouraged to expand the practical curriculum at the universities. Even though, some of the universities we identified, had some form of laboratory programs, however, these are non examinable. Rather, it is geared towards a further understanding of the theory thought in class. Moreover, examination is also focused on the written thereby depriving prospective I.C.T graduates from the practical experience they deserve.

4.3 Employment Prospects

It is important that, students with special interest in I.C.T should be made to go for internship in institutions or companies who are into those areas. Our study shows that, the NAB has successfully been able to encourage universities to implement this as part of their curriculum. However, our interview with some graduates in the field of I.T shows that, this policy is not effective enough. They are usually made to run errand and therefore given limited roles during the internship. We therefore suggest the permanent solution to this problem is to carry out an annual stakeholder's forum between the universities and Employers to differentiate between their "Needs from Wants" in order to make the necessary changes in their curriculum. Secondly, most university authorities are usually looking elsewhere to partner universities abroad for collaborations. In as much as this could be in a positive direction, we however believe that, much attention should also be focused in I.C.T institutions and companies within for collaborations. This will therefore afford I.C.T graduates the opportunity to have a hands-on training on the job market.

MOU's between the universities and the companies must be clear on the requisite skills they want their students to have during the intern and come out with a curriculum spelt out for such purposes. There is also a growing concern or misconception of allowing interns to have a practical experience on an organization's infrastructure. This therefore puts a lot of limitations to the level of access those interns could have.

4.4 Enrolment criterion

The tertiary institutions – the Universities and Polytechnics – that offer programs in I.C.T must be able to come out with clear cut strategies to produce highly skilled graduates specialized in specific areas. Most of our institutions only provide generalized skills training and therefore, we produce graduates with lack of speciality [4]. The curriculum of most universities in the U.S.A, Europe and other developed countries, runs programs in I.C.T and other fields so as to expand the job prospects of their graduates. e.g. programs such as Computer Science & Electronics, Information Systems & Human Resource, Software Engineering & Accounting among others. However, a few institutions in the sub-region have their syllabus carefully structured in that light.

4.5 I.C.T Policy for Ghana

Ghana's ICT policy has suffered a serious setback because of a number of reasons. First of all, the policy document did not focus on the I.C.T needs other than the wants of the country. However, the current trend of I.C.T in most countries in the African sub-region is more persistent to achieving the goals set by our development partners. In Ghana and the rest of the regional bloc for instance, successive governments have touted themselves with the achievement of the Millennium Development Goals (MDG) on I.C.T. The program in itself has its own good intentions; however because of its foreign formulation as its foundation, it fails to meet our interest first before others. The successes in innovation chocked by U.S.A, Europe, China, India and Singapore has been due to the fact that, these countries looked at their needs and demands first, before extending it to others.

5. YOUNG I.C.T ENTREPRENEURSHIP – THE GHANAIAAN EXPERIENCE

Ghana, among other developing countries in the Sub-Saharan Africa, has shown a bright example of the potential of young I.C.T entrepreneurs across the continent. The major contributions of institutions and state agencies that led to this significant success include the improvement of our educational curriculum, efforts by successive governments and state agencies, as well as the private sector.

5.1 The Role of the University

The universities in recent times have revised their curricula meeting international standards due to the increase in competition. This came about due to the law allowing private universities in the country some two decades ago. Some professionals living outside the country have also returned home to assist our institutions due to better working conditions. Moreover, parents, guardians and students have also become increasingly aware of the relevance of course content and therefore make choices in line with what is of interest to them.

5.2 The Role of Government

Successive governments have also increased the level of investment and funding in science & technology. Government through the Ministry of Communication has established the Ghana Multimedia Incubator Centre (GMIC) which seeks to promote ICT Entrepreneurship Development through the incubation of business start-ups and to also develop the much needed ICT skills for Accelerated Development (ICT4D) initiative. The GMIC has been able to incubate several companies and established over 1000 entrepreneurs since its inception in 2005 from support from agencies such as United Nations Development Program (UNDP) and other bodies.

The state agencies responsible for monitoring of the various universities and I.C.T training centres

5.3 The Role of the Private Sector

A small number of bodies have also kick started a number of programs focused on school children to have interest in

science & technology. One of such programs is Kiddiepreneurship which trains school children between 12 to 18 years during the summer break to develop interest in ICT. A number of such training programs include web design, robotics, programming, entrepreneurship, soft skills among others. There have been numerous infrastructural developments in I.C.T by the telecommunication companies and other organizations due to successive government's policies, to attract foreign companies to choose Ghana as a destination hub in the sub region.

6. CONCLUSION

The research identifies the challenges of I.C.T entrepreneurs and the factors that lead to their occurrence. We also discussed some measures that can be taken by the various stakeholders to address them. The paper went further to identify the need to invest more on young I.C.T entrepreneurs in developing countries to enhance their capacity to be competitive. We also recognized that, due to lack of funding by the various stakeholders, the university curricula lack resources to equip them for the challenges as entrepreneurs and the need to vary the curricula on I.C.T to be more innovative and practical in developing countries. The paper therefore postulates the 3-E-D Module which suggests a comprehensive method in addressing the challenges of entrepreneurs.

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