

Infopreneurship as a career option among African University Students

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Abstract

Purpose– This study gives a review of infopreneurship in terms of motivations, curricula, teaching and learning environment in African universities.

Design/methodology/approach– The benefits of using the internet in business communications cannot be overlooked as it has opened up wide prospects not only for large businesses but more essentially for micro enterprises. This opens entrepreneurial avenues especially among the youths through collecting and selling information to the needy. A critical review of research papers and articles was done using a five step approach.

Findings– Evidence showed that challenges associated with the curricula, teaching methods, motivation to students, integration of infopreneurship courses with practical business, creativity and entrepreneurial aspects, are among the key findings of this study.

Originality/value–The study represents original research, it is an attempt to evaluate quality of curricular, teaching and learning environment and motivation to infopreneurship as a career option among university graduates in Africa.

Keywords: *Infopreneurship, career option, ICTs, University Students, and Africa*

1. Introduction

The adoption and use of internet in business communications has opened up wide opportunities for all levels of enterprises. There are many businesses solely depending on the internet communication. Given increasing use of internet based information sharing for businesses, new areas of information trading have emerged. There are a noted increased number of people selling information products and services, usually by searching and selling such information products to information seekers. These people are termed as infopreneurs (Ramugondo, 2021; Poynter in Khosrowjerdi, 2014; Parhizgar and Parhizgar, 2012; Chandler, 2010). The increasingly number of people engaging in infopreneurship is due to a number of reasons, the major ones being low entry costs, less interaction with clients, income creation and huge profit potential, (Adetayo and Hamzat, 2021; Skrob, 2009) and increased unemployment which according to Chux-Nyehe and Nwinyokugi (2020) can be largely solved through infopreneurship undertakings.

The history of infopreneurship can be traced back to January 31, 1984 when the term infopreneur was first trademarked by Harold F. Weitzen signifying its initial usage in the field of commerce (Lahm and Stowe, 2011; Weitzen, 1984). Since then, various scholars have attempted to define infopreneurship in different perspectives. The term infopreneurship is derived from two distinct fields and it has its etymology from the two words: ‘information’ and ‘entrepreneurship’ (Ogbonna and Dare, 2020; El-Kalash, Mohammed and Aniki, 2016). Nweze (2018) defined infopreneurship as the identification of

a business opportunity and taking advantage of it to produce information product and services; including information management. Ramugondo (2010) posit that the term infopreneur is a neologism portmanteau which is the resultant of the words 'information' and 'entrepreneur'.

Chandler (2010) views the term infopreneurship as a fairly new industry buzz that opens doors in support of entrepreneurs to generate new forms of income. It is typically used to connote persons whose core business is gathering and selling of electronic information to the final users. Infopreneurship is an emerging business model in conventional information practice which is typical profit oriented in nature, which uses internet to generate, pack and sell information products and services with the view to generate income and profit (El-Kalash, *et. al.*, 2016). David and Dube (2014) argue that infopreneurship involves the formulation of information-based enterprises that uses internet in identifying opportunities and knowledge deficiencies, and selling to the users' target-based information products, services and ideas. Likely, Lahm and Stowe (2011) views an infopreneur as an entrepreneur who makes a living through producing, collecting, gathering, repacking, disseminating, developing, and selling information and information products and services for a profit, by the use of internet.

In real practice, majority of infopreneurs usually have their own websites, which are used as gateways for operations of their businesses (Adetayo and Hamzat, 2021). Infopreneurs usually collect, compile and pack information on a specific subject in their websites and someone who have interest on the subject would follow the link to access the allied information about the subject (Igwe, 2017). Furthermore, infopreneurship practice covers a wide spectrum of areas which include internet providers, e-services and m-services, computer troubleshooting services, student's essays, term papers, research proposals and research reports and project reports; proofreading and editing (Ramugondo, 2021). Others are access to e-books and e-publishing; business analyst consultancy; web newsletters, and online solutions through recorded videos, referencing, online publishing and techniques of write fundable research proposals writing (Dewah and Mutula, 2016).

In view of this study, infopreneurship is ability to organise resources, bare risk and undertake intelligent searches to gather information from different sources, combine it into novel ways and serves the readers' needs through internet tools as a value added service for profit. The adoption of this definition qualifies infopreneurs to have qualities possessed by categories of entrepreneurs. These entrepreneurial qualities relate to information literacy and that infopreneurs need to have entrepreneurial capabilities such as high degree of autonomy, internal locus of control, high need for achievement, creative thinking, propensity to risk-taking tolerance for ambiguity and over optimistic about chances of being successful (Keshavarz, 2021; Dewah and Mutula, 2016; Storey and Greene, 2010; Olomi, 2009). Other qualities of infopreneurs include: excellent planning skills, good problem solvers, assertive, self-confident, high degree of persistence and persuasion, good initiators, information thirsty and ability to grab opportunities (El-Kalash, Mohammed and Aniki, 2016).

Infopreneurship is emerging as a new term for new type of business people who are making effective use of synthesized scientific, technological, informational, and knowledgeable business operations to create wealth (Parhizgar and Parhizgar, 2012). Information is an essential component in this generation of knowledge based economy, as it is continually being dynamic, costly, repackaged and reconfigured (Peters, 1994 as cited in Du Toit, 2000).

Businesses are increasingly being ready to buy information which will eventually facilitate them to boost their profit margins and maintain their competitiveness in the market. Infopreneurship according to Adetayo and Hamzat (2021), Akpelu (2019) and Stanley (2017) is categorised into two types: (i) info-creators: these are individuals who trade the information that they have collected on their own, (ii) Information traffickers: the second type are those whose income emanates from selling information that they did not generate. They get a commission through selling information gathered by others from numerous sources.

Infopreneurship is considered important source of accurate, valuable and reliable information, which helps in saving time and costs related to information seeking among individuals and organisation (Masron, *et al.*, 2017). It also serves as an alternative source of employment to graduates (Kehinde, 2021). Infopreneurship is a feasible alternative for information which helps managers to be focused, creative thinkers, strategic planners innovative and employment creators (Amakiri and Tاتفeng Marie, 2019). Infopreneurship business is seemly for bootstrappers in a way that it uses low cost technology, start-up costs, with less entrepreneurial experience and orientation which allows graduates to pursue their entrepreneurial career at less expense.

This absolute importance of infopreneurship opens the need for Universities to teach infopreneurship and equip their students with modern skills and strategies needed in the digital world and enable graduates to employ themselves as information brokers in this era of increasing unemployment which is caused by larger corporations downsizing, merging, and squeezing employees out. In this era of unemployment, most of university graduates are ending-up unemployed. Some of them have limited or no resources (such as capital) to employ themselves. This results into increasing crime rates, theft, prostitution and other similar problems. While the level of unemployment is increasing, the use of ICTs in all parts of the world is increasing. For instance, the number of internet users across the globe has increased from 400 million to 3.2 billion in 2000 and 2015 respectively (ITU, 2015). This entails an increase to information access which opens-up opportunities for these graduates to pursue infopreneurship.

Despite its importance, teaching of infopreneurship in African Universities is experiencing a number of challenges which impedes the development of infopreneurship and employability of graduates. These include individual student's challenges like lack of awareness, constrained budget, insufficient ICT skills, excess of dependence on white collar jobs among the graduates and professionals (Amakiri and Tاتفeng, 2019; David and Dube, 2014). There are also challenges related to curricula and course contents, variables such as lack of practical sessions on business proposal writing, business development, e-business and entrepreneurship (Thomas, 2001). Other observed challenges are instructor factors which include: instructor's profiles, use of ineffective teaching methods and resources, deprived abilities and backgrounds on entrepreneurship, business management and critical thinking among course lecturers, and us (Fayolle, *et al.*, 2007; Du Toit, 2000). Likely, access to field visits to successful infopreneurial ventures by the students to familiarise themselves with what essentially happens in the industry with the intention of establishing their own enterprises in future is also a critical challenge among African University students (Dewah and Mutula, 2016). Despite these challenges various efforts have been introduced among African Universities to ensure successful teaching of infopreneurship. These include: introduction of infopreneurship courses, changes in infopreneurship curricula, review of

infopreneurship courses to include topics on entrepreneurship, business analysis, marketing research, technology and innovation, infopreneurship business initiation and registration, intellectual property, financial management and business planning (Dewah and Mpofo, 2020; Masron, *et al.*, 2017).

Apart from the universities, the industry which usually absorbs the graduates, is also experiencing a number of challenges in relation to infopreneurship. Herein, information intermediaries face challenges such as smallness (i.e. small and one business), lack of extensive knowledge, and experience, urban-centricism and elitism (i.e. information as a product is mainly consumed by very few educated members of urban communities), and temporality (i.e. the field suffers from folks who are not persistent) as well as cumbersome and bureaucratic legal registration processes (Ramugondo, 2021; David and Dube, 2014; Ocholla, 1999). It is therefore imperative for authorities and stakeholders to build a clear policy environment and programmes that will enhance the provision of significant education. Individuals get on infopreneurship for numerous reasons. Nevertheless, unemployment is a key reason why infopreneurship is undertaken. This is for the reason that infopreneurship businesses can largely solve the unemployment with more and more graduates engaging in (Chux-Nyehel and Nwinyokugi, 2020).

Studies by Adetayo and Hamzat (2021), Chux-Nyehel and Nwinyokugi (2020), Akpelu (2019), Ramugando, (2010), Christozov, *et al.*, (2008), looked at the importance of infopreneurship without focusing on university students who are the centre to this study. The current study builds on the many benefits of infopreneurship for individuals like university graduates who are in the initial stages as entrepreneurs and those who do not have considerable initial capital. The general objective of the study is to assess the inclination towards infopreneurship as a career option among university students in Africa. The study too intends to develop a conceptual model for infopreneurship as a career option among African University students. More specifically, the study seeks to: (i) examine the implementations of the current curricula among African universities, (ii) determine the environmental forces that influence teaching and learning of infopreneurship, and (iii) identify ways of motivating students to pursue infopreneurship career. In attempting to address these objectives, the following key questions are addressed in this study: (i) What are issues and dilemma in the implementation of the current curricula among African Universities? (ii) What environmental factors influences of teaching and learning environment of infopreneurship? (iii) What are motivating factors for University students to pursue infopreneurship as a career option?

2. Materials and Methods

The methodology used is based on library search and documentary review which followed a five (5) steps approach, as summarised in Appendix 1. The first step focused on bringing together a wide range of infopreneurship research articles. Three (3) databases were then searched with the use of four (4) key phrases for peer-reviewed scholarly articles in the area of infopreneurship, entrepreneurship, intrapreneurship, library and information sciences with no restrictions on publications dates. The databases used were Emerald Insight, infopreneurship.net, and SciVerse Science Direct. The search phrases were: “information entrepreneurship”, “infopreneurship”, and “ICT and entrepreneurship.” The search yielded eight (8) papers published between 1990 and 2020 from a diversity of disciplines, including entrepreneurship, Library Information Sciences, and e-marketing.

Appropriate research papers related to the research agenda were selected. Four journal papers by Ogbonna and Dare (2020), David and Dube (2014), Ramugondo (2010) and Du Toit (2000) were found to specifically focus on the desired research agenda and thus were selected for a review. To accomplish this, a content analysis was done on the key sections of papers. The focused analysis was conducted by first, reading the title, abstract and keywords of each article to check if it fits into the proposed research area. Inductive content analysis was then done on the text of the entire paper. This analysis is considered to be appropriate in events where the knowledge is fragmented and the phenomenon under investigation has not been previously studied. Herein, inductive content analysis was done in three stages: (i) data reduction, (ii) data grouping, and (iii) formation of concepts that answers key research questions in the study. This was then followed by the analytical process on which coded data were read, organised, integrated and clustered into categories, concepts and themes through which a carefully comparison on the similarities and differences were observed. This was purposely done to create abstracts of raw data that summarise the main categories, concepts and themes which provide the underlying theoretical relationships.

3. Results and Discussion

The study intends to assess the inclination towards infopreneurship as a career option among university students in Africa. The results and discussion of the study were derived from the study objectives. On top of that, discussion of the findings is focusing on three research questions and major findings of the study which were based on the key themes of the study i.e. curriculum issues and dilemma; teaching and learning environment; and Motivating factors for students to pursue infopreneurship. Furthermore, the study developed the conceptual model for infopreneurship as a career option amongst University students.

3.1 Curriculum issues and dilemma

David and Dube (2014) do not talk about curriculum issues, instead they focused on the differences between information products as opposed to manufactured goods, and they therefore stress on the need for specialised skills and training that are customized to information products. For the course content it is found that there is a need to integrate infopreneurship courses with more of the practical activities, business priorities, e-business, business development and entrepreneurship (Kefela, 2010; Du Toit, 2000). Knowing these disparities and the importance of amalgamation, a study by Ramugondo (2010) suggests the need for the department of Information Studies at the University of Zululand to make an intensive study on the curricula of other universities to strengthen the field of infopreneurship. In view of this study the curriculum design should focus on knowledge and skills that a successful infopreneur would need. Thus, it is very important that the focal point of course content development to implant and infuse creative, analytical and business skills.

These observations reveal the presence of curricula which lack integration of disciplines, neither addressing future of business management education and with too little emphasis on entrepreneurship skills in the curricula. The curricula should embrace active participation in the economic development process and international focus and concentration in specializations. This observation is further concurring with the findings by Du Toit (2000) in Ramugondo (2010) that infopreneurship is action-oriented and thus the designing of its curriculum should encourage imagination, creativity, innovation, and strive to bring a balance between entrepreneurial and managerial skills.

3.2 Teaching and Learning Environment

Aspects of teaching and learning environment are very important for a study on infopreneurship behaviour and job option for the university students. It is from these two that one gets to know the foundations that learning institutions lay on these future information entrepreneurs. In view of this, a study by Du Toit (2000) depicts that study visits to information businesses, experience sharing, business plan preparation exercises, practical assignments and lectures on infopreneurship are very effective teaching methods as opposed to the use of video tapes. Studies by David and Dube (2014) and Ramugondo (2010) do not look at the teaching methods at all. Nevertheless, the three studies by David and Dube (2014), Ramugondo (2010) and Du Toit (2000) did not investigate the capabilities and business experiences of the lecturers teaching infopreneurship courses. This study however, insists on an understanding of the information science, entrepreneurship and business management background and practices among the lecturers. The more frequently use of practical examples, cases and new combinations of teaching and learning methods on the subject, will prompt easier understanding of the course and motivate more students to engage themselves in infopreneurship.

A review of the two other papers by David and Dube (2014) and Ramugondo (2010) informed that, Computer Science and Library and Information Science (LIS) students were both taught infopreneurship course together. However, the two groups had different backgrounds, expectations and motivations towards many aspects, creative skills, and entrepreneurship analysis and design skills being among them. This appeared to hamper their performance and motivation to pursue infopreneurship. The current study informs that academic institutions should consider the nature and requirements of different groups taking infopreneurship courses. This is also noted in Du Toit (2000) that students from similar groups but with different backgrounds should not be taught same courses with same objective and anticipated learning outcomes.

3.3 Motivating factors for students to pursue infopreneurship

David and Dube (2014) view the massive amounts of information that are available and accessible to be the motivating factor for students to opt for infopreneurship. Ramugondo (2010) considered unemployment as the main factor that motivates students to pursue infopreneurship following the recent calamity in the corporate world referred to and termed as “recession”, where many employees lost their jobs. Ocholla (1999) points out the increasing recognition of the importance of information and knowledge together with willingness of information users to pay for the services offered by the information intermediaries as the motivating factor for students to undertake infopreneurship.

In view of this study one most important motivating factor is the pace of science and technology. That has influenced a move from traditional means of providing information through intermediaries like libraries and bookshops to the contemporary methods characterized with increased access to ICTs and other digital applications. This study argues that the increasing need for independency and self-employment among the young and future entrepreneurs is yet another motivating factor. This argument is supported by Sánchez and Sahuquillo (2018) who indicated that the need for independence as the main factor for students engagement in entrepreneurship and manage their own enterprises. The study contributes to

evidence of reasons for an increasing number of successful and educated individuals who are leaving their bureaucratic careers and venture entirely on own infopreneurship businesses.

3.4 Resultant conceptual model

This study developed a conceptual model for infopreneurship as a career option among African University students (see Appendix 2). The centre to this model is the students as it looks at how curriculum, motivation and teaching and learning environment duly influence their decision to opt for infopreneurship. To build and shape competent infopreneurs in all aspects of business, the model emphasises the use of a bottom up approach by the curriculum developers to reflect and accommodate the needs, motivations and perceptions of infopreneurship students. It also accommodates the views and experiences of those already in the field, the need for practical skills and training in creativity, entrepreneurship and e-business to meet the market demand (Kefela, 2010; Thomas, 2001; Du Toit, 2000).

Teaching environment in this model focuses on the use of effective teaching and learning facilities, teaching methods, backgrounds and capabilities of lecturers. These according to Welsch (1993) will motivate students to become good infopreneurs. Motivational aspects such as unemployment, access to ICT facilities, high need for independence, need for power (n-Pow) and need for achievement (n-Ach) among the youths, and interaction with successful graduate infopreneurs are more likely to motivate more graduates to choose this career (Keshavarz, 2021; El-Kalash, *et. al.*, 2016; Ramugondo, 2010; Olomi, 2009).

4. Conclusions

The study established gaps in curriculum development and the contents requirements. From this observation it is concluded that an integration of practical related activities and courses on business studies, e-business business development and entrepreneurship in infopreneurship syllabi will strengthening graduate's ability to meet with the current information needs. The study also identified lack of capabilities and business experiences among the university lecturers teaching infopreneurship courses. This would only be achieved if the lecturers are exposed to the industry and learn the practical side of it prior to classroom delivery. It is thus concluded that universities and the industry need to have a strengthened innovation ecosystem that would improve the delivery of infopreneurship courses in Africa. The study too identified that increased unemployment, importance of information, knowledge and willingness to pay for information among users are the key motivating factors for students to pursue infopreneurship. The study therefore concludes that the inclination towards information entrepreneurship among university graduates calls for appropriate policy environment and commitment by the students, university communities, governments and stakeholders. Overall, the importance of infopreneurship in the current knowledge economy and digital age can be viewed through its benefits. The study revealed that the teaching of infopreneurship in African universities faces a number of challenges consequential from institutional, cultural, economic, policy and commitment among the key actors. It is from this study we conclude that a new drive is needed to revitalize the curricula, teaching and learning environment and motivate more students to undertake infopreneurship as a career.

5. Recommendations

From findings the study recommends the need to:

- (i) Reassess the curricula to be able to cope pace with technological developments and be able to move with the required pace from the reliance on traditional means of providing

information (e.g. libraries, bookshops) to ICTs and other digital applications which match with the current information needs.

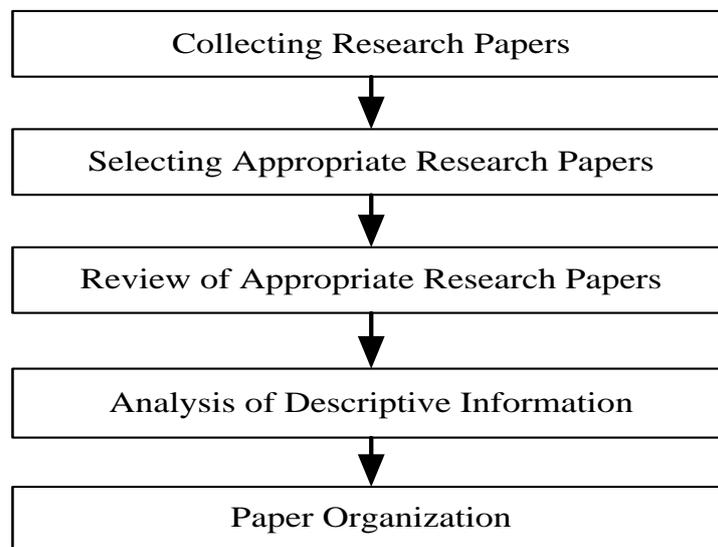
- (ii) Design, develop and use more innovative teaching and learning methods to make a more practical and interesting teaching of infopreneurship. Abilities and backgrounds of course lecturers, the use of the most effective teaching methods which are focusing on the practicalities of this field should also be reviewed and improved.
- (iii) Use of new ways and strategies which will motivate students to pursue infopreneurship by way of changing their mindsets and facilitate them to view entrepreneurship as an excellent career option and be motivated to pursue infopreneurship following the observable impacts of recent global economic crunch and associated increased unemployment rate.
- (iv) Come up with a mechanism through which African Universities, policy makers, educators and other stakeholders across the continent will work together to classify the universal competencies required by infopreneurs. Due emphasis is needed in areas such as practical business planning, business registration and formalisation, Intellectual Property rights, entrepreneurship, e-business and business management are essential to future infopreneurs.

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APPENDICES**Appendix 1: Five Steps Approach****Appendix 2: Resultant Conceptual model**