

# ENTREPRENEURIAL AND FUNCTIONAL COMPUTER SCIENCE EDUCATION AS A MEANS OF ACHIEVING THE NATIONAL OBJECTIVES OF VISION 2020 IN NIGERIA

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## **Abstract**

An entrepreneur includes any one who creates a business, establishes it, and nurses it to growth and profitability, takes over an existing business, or who inherited it and continues to build and innovate on it. Computer science deals with the theoretical foundations of information and computation, and of practical techniques for their implementation and application. The [human-computer interaction](#) focuses on the challenges in making computers and computations useful, usable, and universally accessible to [people](#). The beginning of the digital computer brings easy and fast access to information through the Internet which needs to be maintained. Some institutions teach computer science courses like Database Management System, Programming Languages, Information Technology, etc, organize conferences, seminars and workshops to impart knowledge to citizens. Vision 2020 is a comprehensive framework designed to stimulate economic growth in Nigeria.

## **Introduction**

Nigeria is one of the developing countries that have abundant human and material resources. These resources are the tools that brought changes and development.

Entrepreneurship can be an individual or group of individuals who either undertakes the responsibility of making innovations in the economy or carries out a new organization of any industry. It empowers an individual, community, organization and even a nation. Business can be maintained or failed after establishment depends on the management of the resources.

Computer Science is a wide and dynamic discipline in that changes occur everyday and hopefully one is expected to be abreast with these changes as fast as possible. The effectiveness of any educational programme is largely dependent on its effective management and the availability of competent material, human and financial resources. In computer science education material resources include classrooms, hostels, ICT centres, furniture, offices, quarters, water, vehicles and power supply. Human resources are professional academic staff and non-academic that could be both professional and professional. Financial resources include money from the government, individual and/or voluntary organizations.

Nigeria would be one of the twenty developed countries in the world by the year 2020 if only the people and the government could accept changes in leadership style, economic growth, maintenance culture and true utilization of computer knowledge in programming, application packages and e-services.

## **Entrepreneurial**

Entrepreneurial functions are marketing and innovation. A business enterprise can exist only in an expanding economy, or at least in one which considers change both natural and desirable. Business is the specific organ of growth, expansion and change. Innovation is the provision of better and more economic goods and services. It is not enough for a business to provide just any economic

good and service; it must provide better and more economic ones. It is not just necessary for a business to grow bigger, but it is necessary that it constantly grows better.

### **Importance of Entrepreneurship**

For those involved in entrepreneurship, it is important that they have a critical understanding of the potential combination of marketing and innovation, their position within the context of other parts of the economy and the reasons for promoting them. In general entrepreneurship contributes to the economy in the following ways: creates employment, empowers the poor and women, enhances self reliance, provides competition, fills the needs of the society and other businesses.

### **Starting a Business**

There are many things to be considered before starting a business which include the following:-

- i) What is your reason for going into business? You want to be your own boss and you want financial independence so that you fully use your skills and knowledge.
- ii) Decide what business will be right for you. Thus, what do you like to do with your time; what technical skills have you learned or developed? What do others say you are good at? How much time do you have to run a successful business, and do you have any hobbies or interests that are marketable?
- iii) What niche will the business fill? Thus, is your idea practical and will it fill a need? Who is your competitor? What is your business advantage over existing firms? Can you deliver a better quality service or can you create a demand for your business?

For any kind of business, the owner(s) need to employ four major types of resources:-

- i) **Material Resources** - Material resources include the raw materials that will be converted into finished goods, the plants and machinery used for production and distribution of goods and services, the factory buildings and warehouses.
- ii) **Financial Resources** - This includes all monies used for day-to-day operation of the business, such as salaries, overhead expenses and purchases.
- iii) **Human Resources** - Human resources are the employees who work to earn a living from the business and they are the most important of all the resources.
- iv) **Information Resources** - Information resources are used to monitor the efficient combination and utilization of all the other resources to attain the desired goal.

### **Why Businesses Fail**

Lugga (2009), states that the major reasons why many businesses fail are due to poor management, decision-making and planning especially with regard to whom products/services are to be offered and the market to be served. Other reasons why business failed include; lack of experience, money, wrong location, over expansion, etc.

### **Computer Science**

Computer science deals with the theoretical foundations of information and computation, and of practical techniques for their implementation and application.

Shiloba (2004), states that today Internet is one of the most powerful tools throughout the world. The Internet is a collection of various services and resources. The Internet's main components are E-mail and the World Wide Web. The Net also ranks as one of today's best business tools. Almost

all households contain the Internet; however, before people connect to the Internet, they need to be aware of its disadvantages and advantages.

No one is in charge of the Internet. There are organizations which develop technical aspects of this network and set standards for creating applications on it, but no governing body is in control.

Ogunrinde (2004), states that, Network management refers to how computer networks monitor and manage active functions like:- Fault management detects, displays, and maintains records of alarm conditions; Configuration management handles additions, deletions, and changes to the network; Accounting management tracks the measurable use and cost of network resources; Performance management is designed to optimize the speed of the network and to ensure effective utilization of the network resources; Security management deals with logging on and protection of the network from external attack from intruders or unauthorized users and crackers.

### **Network Problems**

Network cabling is the most common source of problems on the network. Cabling problems have many symptoms such as disconnecting workstations, slow network services, a high level of packet errors, and unreliable data transmission. If you have reports of any of these problems, one place to start is by investigating the cable plant. Things to check which are related to cabling problems include: Cable length, cable type, terminators, grounding, cable impedance, an open or short, connectors and distance between connections.

### **Computer Science Education**

The National University Commission (NUC), National Board for Technical Education (NBTE) and National Commission on Colleges of Education (NCCE) are modifying their curricula introducing some computer courses that are compulsory for students of tertiary institutions. The reason for doing this is not far fetched but to enable the students have knowledge in computer (computer literacy) to manage information, process transactions, design software, etc.

Some institutions have Computer Science Departments producing computer science graduates who will be professionals in the field. In early 2000 most of the software used was designed abroad at very high cost. Today more than half of the application software like payrolls, personnel database, e-transactions were designed by our graduates. What will be the output in the next five years?

For students outside Computer Science Department, some selected compulsory courses are incorporated like;

- i) Introduction to Computer – topics like; definition of computer, types, generations, etc, are treated to give them concept of computer.
- ii) Computer Application Packages – packages like Word Processing, Excel, Corel Draw, Access, Power Point, etc, are learnt to enable them process their documents, save, retrieve and edit.
- iii) Introduction to Internet – to enable students learn searching for documents, handle e-mail and other e-transactions.

Some institutions organize consultancy programmes for other professionals who are computer illiterates to be literates. I believe we have such beneficiaries in our midst. Courses taught include; Word Processing, Information and Communication Technology, Internet, Excel, Programming, Access, Desktop Publishing, etc.

### **Focus on Development**

Taiwo (2009), states that Nigeria must have adequate infrastructure that supports the full mobilization of all economic sectors, as well as a modern and vibrant education system which provides opportunity and facility for every Nigerian to achieve his or her potential. Socially, Nigeria must improve her education and health delivery systems in order to build an effective human capital to drive development.

One of the major challenges that face Nigeria today in achieving Vision 20-2020 agenda is the urgent need to build a strong and vibrant economy that is positioned to utilize the country's abundant human and material resources.

Therefore, in order for the objective of placing Nigeria among the 20 most developed countries by the year 2020 to be realistic, stakeholders believe that there has to be necessary change in the nation's leadership, entrepreneurship and industry.

Development is a roadmap for the betterment of Nigerian people and Nigeria as a nation. We must not just sit back and watch our nation crumble. It is a responsibility of you and me to make positive impact in every ramification to make Nigeria a better place for us and for our future generation.

The entrepreneurship main thrust is the development of leadership and entrepreneurial spirit in all fields of endeavour. Development is both managerially and motivationally oriented, mobilizing people to be result-oriented managers, wealth creators, economically viable, financial independent and above all, to be mentally and physically healthy to enjoy the acquired wealth.

### **Overall Aspiration and Target for the Nation by the Year 2020.**

By the year 2020, the nation aspires to achieve its target as follows:

- i) Attainment of 60% computer literacy through training in schools, organizing conferences, workshops, seminars, etc.
- ii) Provision of adequate infrastructure in academic institutions like classrooms, hostels, clinics, water, power, etc.
- iii) Provision of good road network for easy access to desired destination and power supply to all sectors.
- iv) Establishment/reactivation of industries in order to engage the graduates.
- v) Change in some of the leadership style in both private and public sectors.
- vi) Provision of adequate security of life and property and the application of rule of law.

### **Conclusion**

In conclusion an entrepreneur creates, takes over an existing or inherited a business and innovate on it. Computer Science courses are taught in schools to impart knowledge and utilize it in the field of entrepreneurship, leadership and industry. Knowledge is power we need to know what we do not know. If only Nigerians will accept change, the 20-2020 vision would be achieved.

### **References**

Drucker, P(2004) *Business metamorphosis* LLC. All rights reserved.

Lugga, W.J (2009) Lecture notes on entrepreneur. Adamawa State Polytechnic, Yola.

Ogunrinde, S.I (2004) Course material on network programming and design. National Open University of Nigeria.

<http://cs.gmu.edu/cne/pjd/GP/CompDisc.pdf>

Report on the Vision 2020 Stakeholder Development Committee for Adamawa State 2009

Shiloba, G. E (2004). Course material on introduction to internet. National Open University of Nigeria.

Taiwo, J (2009) *This Day News Paper* 17<sup>th</sup> February.

[www.USFreeads.com](http://www.USFreeads.com)