TEACHING BUSINESS SKILLS TO ARCHITECTURE STUDENTS: a case for curriculum change

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ABSTRACT: *The 21st century is characterised by advancement in technology, communication and globalisation. Critical and imperative to this advancement is opportunity for people to compete. This paper takes a look at teaching of business skills to architecture students. It examines entrepreneurship approach as an avenue for the architecture students to create and develop their own businesses as a way of addressing unemployment after graduation. The paper recognises that technological changes have had their impact on the practice of architecture hence the need for students to be imbued with IT architecture skills to enable them perform various tasks. The paper further identifies the decline in the number of architectural design competitions in schools of architecture. These competitions are vehicles for promotion and exposure of budding talents, so the paper advocates for their organisation and resuscitation in schools of architecture in Nigeria.*

Key words: *architecture, business, design, entrepreneurship, skills.*

INTRODUCTION

The concern for entrepreneurship orientation for the students of tertiary institutions in Nigeria has dominated the core of discussions by the stakeholders of education in Nigeria. This, in particular is viewed to be an intervention approach which would help to address unemployment. Over the years, unemployment 'crisis' continues to deepen and government has continued to advocate for partnership and collaboration from private sector in order to mitigate the trend.

Put succinctly, the new approach being canvassed, is trying to encourage graduates of tertiary institutions to embrace the culture of self-reliance as opposed to seeking white collar jobs from the government.

The field of architecture like any other discipline is faced with this challenge. This paper takes a look at teaching of business skills to architecture students in response to the changing social and economic situation occasioned by globalisation. The business skills in architectural context are not restricted to ordinary buying and selling but dwell more on basic business ideas to get students to start their own business and strategic inputs that aim towards identification and exploitation of opportunities, management and sustaining business growth.

Architecture is a vast discipline that encompasses art, science, technology and business management. In antiquity it was the art and science of designing a building. As the world advances, so also is this definition and role changing. The trend now is that architecture is more of business enterprise or what is known as enterprise architecture. The training of architecture students has to reflect entrepreneurship and basic knowledge of business. Adeyemi (1990) has argued that the inclusion of professional and management courses into the curricula of architectural education in developing countries of the commonwealth would prepare the students for managerial roles stressing that it is in these courses that comprehensive architectural education could be attained; and since the nature of architectural education is all-embracing, hence the need to broaden students knowledge both in practical and theory aspects to put them in touch with modern realities (Chukwuali, 2002).

Vander (2001) notes that schools today face high standards, diverse learners, technological challenges, and market pressures-issues that schools and school leaders were not trained to confront. This

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places a high expectation on students to rise up to the challenges of the new economy. Technological changes especially in information technology, the insistence on graduates of proven competence and skills by the employers of labour have opened a new vista of learning opportunities for both architect-educators and students. Thus the exploding education market is proposing new service delivery scheme, new competition and expanding choices to both the students and architect-educators.

ARCHITECTURAL EDUCATION AND ENTREPRENEURSHIP

Architectural education in Nigeria takes between five and six years for the first-tier and the second-tier leading to the award of Bachelor of Science (B.Sc) and Master of Science degrees in architecture in conventional schools of architecture; and Bachelor of Technology (B.Tech) and Master of Technology (M.Tech) degrees in the universities of technology. During the period of training, students are exposed to courses such as architectural design, history and theory of architecture, construction technology, building structures, architectural graphics and environmental sciences as well as courses in humanities; logic and philosophy required for analytical reasoning which helps the students in planning and making sound decisions.

The schools of architecture in Nigeria have differing philosophies, aims and objectives. The aims and objectives spell out the purpose; emphasize the nature of architectural education to be imbued into the students and the quality of manpower that will be responsive to the yearnings of the problems of built environment. The goal of architectural education as practised in schools of architecture is to train students who will become practitioners of the profession. Olotuah and Adesiji (2005) affirm that the programme of study leads to the production of professionals who are sensitive to human needs and aspirations and who are creatively and intellectually equipped to proffer solutions to the problems of the built environment. In order to achieve this end, schools of architecture through their aims and objectives set out to impart skill and knowledge to the students to enable them contribute meaningfully to the evolution of modern societies and transform the physical landscape expressed in an orderly built environment.

At the Federal University of Technology Minna, the philosophy of the Department of Architecture is "Creativity and Technology in Cultural Context". It identifies the symbolic nature of the university's philosophy, the rich cultural heritage of Nigeria and places emphasis on producing architects who should possess enough scientific, technical and professional knowledge so as to be versatile in all aspects of protection, management and responsive design of the environment. Thus the high point of the training is that the students should graduate to be job creators and not job seekers.

In seeking to achieve these virtues, there is the need for business entrepreneurship skills to be included into the curricula of schools of architecture in Nigeria. A deep search into the curricula reveals no inclusion of business management skills which are fundamental for success and to becoming self-reliant after school.

Due to the seeming lack of enterprise orientation for the undergraduate architecture students, the students often find it tough securing employment after graduation. Thus the purpose of being job creators as enunciated in the aims and objectives of some schools of architecture in Nigeria is defeated. Aladekomo (2000) has argued that the concern for acquisition of knowledge and skill in Nigeria's tertiary institutions was enormous to the almost neglect of its implication for employment (or unemployment). Aladekomo affirms that it is nowhere suggested in the university curriculum course content that a very possible outcome of the programme may be self employment.

RELEVANT MEANINGS OF ENTREPRENEURSHIP

Entrepreneurship in the past few years has gained relevance in the national discourse, stemming primarily from the discovery that unemployment gap has been

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widening through the years (Bello, 2003). Many definitions of entrepreneurship can be found in the literature describing business processes. Although business experts have argued that the term *entrepreneurship* could be somewhat difficult to define, this is because the word has become sort of a generic term that describes varying types of behaviour from being creative to being mischievous.

For the purpose of this paper, entrepreneurship is defined as a process of starting up own business, inventing something new and developing a spirit of creativity and innovation that embraces an entire organisation. In architecture, a 'design' is understood to be an invention that arose as a product of a creative thinking and which followed a planned course of actions of aggregating all rational, systematic and objective factors and intuitive, imaginative and subjective factors to produce a quality human habitat called a 'building' (Uji, 2002).

Chukwuma-Uchegbu (2006) identifies that the Nigerian economy and world economy is competitive driven whereby performance and high standard give the job out which is why architecture students need to take in their stride these new realities in order to be abreast of development in the world. This is consistent with Abdulkarim & Badiru (2004) that for architectural profession to be responsive to the changing times and demands, architecture has to be equipped with business-oriented skills to go along the traditional basic services offered by the profession.

CHARACTERISTICS OF ENTREPRENEURS

The major characteristics of entrepreneurs are namely:

i. Self confidence and multi-skills.
ii. Confidence in the face of difficulties and discouraging circumstances.
iii. Possession of innovative skills needed to take a dive into 'un chartered waters' and carve a niche in the business environment.
iv. Results- oriented. To be successful requires the drive that originates innately by setting goals and targets and deriving pleasure they are achieved.
v. Taking measured risks
vi. Total commitment. This involves hard work, energy and single-mindedness.

The entrepreneurship characteristics required to start a business successfully are often not those required for its growth and to manage it once it grows to any size. The role of the entrepreneur needs to change as the business develops and grows.

However, some of the above attributes of entrepreneurs are imparted to the students in the architectural design studio. The design studio method alone is all encompassing, demanding and tasking which explains why in the course of presentation of the studio design project, a student will have to exude confidence to present his work, exhibit innovation in the choice of selection of materials for the construction and for his design to be a master piece he must combine aesthetics with reality. . This is why a student of architecture by reason of his training and education could be made to adapt to any changes if given the proper orientation. A student of architecture as a manager or entrepreneur can be trained to start, build, and maintain a business which becomes very useful before and after graduation.

THE NEED FOR INFORMATION TECHNOLOGY (IT) SKILLS IN ARCHITECTURE

"IT Architecture" and "IT Architect" have been variously used but poorly defined in the IT industry. They are used basically to classify a variety of practices and skills applied in a wide variety of IT domains. An IT architecture practice is a formal programme of development and certification, by which an enterprise formally recognises the skills of its practicing IT architects, as demonstrated by their work. Such a programme is essential in order to ensure the alignment of staff skills and experience with the IT architecture tasks that the enterprise wishes to be performed.

With the changing role of architecture profession, multiple competencies and skills are sine qua non to success and greater attainment. In this

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regard, schools of architecture should strive to equip the students with IT skills which can be subsumed into Computer Aided Design (CAD) course to enable them undertake the various architecting tasks.

Generally speaking, five broad categories of IT skills could be of relevance to architecture namely:

i. Generic Skills: These comprise leadership, team working, and interpersonal skills.
ii. Business Skills and Methods: Typically comprising business cases, business process, strategic planning.
iii. Enterprise Architecture Skills: Typically comprising modeling, building block design, applications and role design, system integration.
iv. Project Management Skills: Typically comprising managing business change, project management methods and tools.
v. Technical IT Skills: Typically comprising software engineering, security, data interchange, data management.

REVISITING ARCHITECTURAL DESIGN COMPETITION

Architecture discipline is generally rooted in deep expressions of ideas, thought, simulations and solutions to the problems of the built environment. To a large extent, it is a process of mental thinking and meditation aimed towards a goal(s) which is why at the end of the studio programme, every student is required to present his/her scheme on the approved design topic to a jury composed of persons in academia practicing architects and allied professionals.

An architectural design competition is a special form of competition in which an organisation or government body that proposes to build a new building asks for architects to enter differing designs for the building. The winning design is usually chosen by a panel of non-competing architects and government representatives. Student design competitions are also held in a similar manner. In the past, there used to be design competitions among architecture students from various institutions in which the best is chosen and awarded with prize after passing through assessors. This has proven to be very effective as budding talents are discovered and allowed the opportunity of gaining exposure; it also assists students to effectively respond to design related - challenges after completing their programme. Today, architectural design competitions are not organised as before and virtually have lost their tempo in the schools of architecture in Nigeria.

In the architectural practice, there is still a pocket of some architectural competitions both open and selected. The competitiveness of the market informed by information and technological advancement is so enormous that the job has to be taken away by the top performers in the industry or given out to people who have managed to achieve architectural excellence and who have also continued to put in place strategies, management initiative to command respect and fame in the industry.

There is the need to resuscitate architectural design competitions in schools of architecture in Nigeria. The responsibility lies with the Nigerian Institute of Architects (NIA) to be re-awakened to the benefit that could accrue through promotion and organisation of architectural competitions. This time competitions should take into cognisance the trends in information and technology, business management skills, IT skills for performing architecting tasks and Computer Aided Design Drafting (CADD) skills. This will engender greater performance from the students not only in architectural design but giving them the advantage of sense of competitions and preparing them for self-employment. Again, competitions also develop a feeling of mental alertness in individual so that when opportunities are available they are quickly recognised, utilised and harnessed for maximum benefit.

RECOMMENDATIONS

The following recommendations are proffered.

1) **Curriculum Upgrade**: There is need to develop business acumen right from school. The lack of it by architecture students has been traced

to the curriculum not having courses in business studies and administration. This goes also for entrepreneurship skills which would prepare them for self-employment after their studies.

2) **Personal and Professional Skills**: Part of key to success in business is to develop people skills. This is because business thrives if good relationship is maintained with customers, clients, suppliers and often times, providers of finance and employees. There is therefore the need for architecture students to have and develop strong communication and relationship skills to be able to relate well with other people from different professional backgrounds. Strong negotiation and problem solving skills are also important.
3) **Skills and experience in more disciplines**: The more knowledge a student has in other disciplines the more his versatility. The knowledge of basic business skills would enable students of architecture to diversify, start businesses and sustain them by applying and exploiting the management principles of organising, planning and giving leadership.
4) **Investment in other businesses**: In a changing world, the need to diversify is of the essence; this is achieved by taking occasionally, measured risks into other profitable businesses such as stocks, telecoms and real estate.
5) **Knowledge of Information and Communication Technology (ICT)**
The discipline of architecture is gaining attention within the IT industry. Knowledge also is fast becoming a strategic asset for economic development; thus there is the need for students of architecture to have skills in computer, skills in the use of Computer Aided Design and Drafting (CADD) application software including 3D rendering and modeling and IT skills for them to tap into the abundance of wealth and opportunities brought about by the innovations and technologies.
6) **Resuscitation of architectural design competitions**: The Nigeria Institute of Architects (NIA) should resuscitate architectural design competitions among various schools of architecture in Nigeria in order to assist students to be exposed to the benefits of such competitions.

CONCLUSION

This paper has attempted the teaching of business skills to architecture students. It highlighted entrepreneurship as measure required for architecture students to start and own their businesses as a way of addressing unemployment in Nigeria. The paper affirmed that business studies and management should be included in the curriculum course content of architecture which would prepare students for the reality of self-employment after school. The paper proffers recommendations on the fostering of business skills to architecture students in Nigeria.

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