A review of Issues and Opportunities of Archi-preneurship Practice in Nigeria

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Abstract

This article appraises issues and opportunities of architectural entreprenuership (archi-preneurship) practice in Nigeria. It recognises the relevance of entrepreneurial orientation in the architectural syllabus as a consequence of the emerging issues facing the career path and derived from students’ long-term educational needs to prepare them for a successful job in a competitive global economy. Hence, industrialisation, job creation, and poverty alleviation processes are accentuated by entrepreneurship. To find out these issues and opportunities of archi-preneurship, a systematic review approach was adopted to source current relevant data from Academia, Elsevier, ScienceDirect, Google Scholar, MDPI, and ResearchGate databases for this study, which focused on programmes relating to the architecture profession that can help entrepreneurs grow and make conclusions. The concepts of entrepreneurship, architecture, and technology were explored. Five specialisation areas that would potentially facilitate entrepreneurial prospects in Nigeria were identified, and the challenges they present to architects. These components include architecture consultation; research and application of building information modeling (BIM) technologies; property development and construction, retrofitting and energy efficiency; sustainable building material science; and urban design. Some available skills architecture graduates could engage in include landscaping, interior design, graphics and animation, project management, architecture blogging, forensic architecture, and building pathology among others. The study outlines different aspects that architects should consider to de-emphasise the hunt for non-existent office employment and embrace self-occupation. Also, more entrepreneurial training skills and development programmes should be established, as well as a reassessment of the present syllabi to instill business knowledge at all stages of architecture education.

INTRODUCTION

Globally, deprivation, joblessness, and political and socioeconomic instability offer significant difficulties to the existence of every population in any given nation. Every nation has a critical need for creativity and invention, which necessitates enterprise in all of the special abilities that we all possess separately (Riata, 2012). Entrepreneurship has grown in popularity around the world since the early 1980s (Welter et al., 2017; Evenett, 2019). The key element that led to the increased concern was the issues faced by industrialised nations as a result of economic downturn, poor job prospects, and fluctuations in global trade cycles, which several of these countries had not previously encountered (Christensen & Kowalczyk, 2017; Erokhin & Gao, 2020; Kenny, 2020). According to Yusof et al. (2010), employment rates are also a crucial challenge in the increasing awareness of entrepreneurial education innovation in institutions of higher learning; and so this viewpoint is likely to draw awareness of the possible role of the entrepreneur as a reasonable option to a wide range of the nation's economic problems (Chigunta, 2017; Shernoff et al., 2017; Wu & Si, 2018; Ratten, 2020). Several organizations, such as vocational and educational institutions, are grappling with the issue of how to foster an entrepreneurial culture, but some are now also giving valuable and the required help, such as advice and monetary assistance (Kuzminov et al., 2019; Sa & Serpa, 2020; Brown & Harvey, 2021). Additionally, many schools of higher learning are already offering major academic programmes in
entrepreneurship development in addition to the conventional managerial or business areas like human resources and public administration, marketing, accounting, public finance, and economics. This is important because many higher education institutions around the world already included entrepreneurial courses in their curriculum (Jessop, 2017; Papagiannis, 2018; Solomon et al., 2019; Wegner et al., 2019; Hassan, 2020). In developing economies like Nigeria, though, this is yet to be adequately exploited, cultivated, or studied (Isiwu & Onwuka, 2017; David-West et al., 2018). However, consideration is underway by the National University Commission (NU) to domesticate entrepreneurship in every course of study curriculum (professional, managerial, or business).

Nigeria faces a variety of issues that cannot be overcome unless its population is creative, intelligent, and enterprising, regardless of their work description, and have the energy and curiosity to conceive in novel ways while also having the bravery to confront and respond to the complexities they face with (Nana & Muhammad, 2018; Offem et al., 2018; Omeje et al., 2020; Ubogu, 2020). According to De Jager et al. (2018), Maroufkhani et al. (2018), and Backman et al. (2019), a robust economy that is dynamic and capable of creating the needed jobs requires a greater proportion of talented youths that are eager as well as willing to become self-employed, and who will develop successfully and launch their businesses (Olugbola, 2017; Yunus, 2017). However, because education plays a critical role in forming the perception, abilities, and ways of life of young people (Serdukov, 2017; Papagiannis, 2018), education on marketable skill acquisition must be provided to make the youths become innovators and inventors in the larger society of their workplace. This is because employable skills would not only help to reset their minds but also provides the knowledge and abilities necessary to create an entrepreneurship spirit (Galvao et al., 2017; Papagiannis, 2018).

All parties involved have been forced by the status of the economy and the high rates of unemployment in many nations to realize the importance of entrepreneurship and how it may contribute to gross domestic products and economies (Garba, 2017; Aun et al., 2018; Etim & Daramola, 2020). Igwe et al. (2020) and Kifordu et al. (2021) posited that the realisation of the significance and applicability of entrepreneurship acquisition to grow the economies of Nigeria has motivated stakeholders’ determination to nurture marketable skills in many ways. To achieve the goal of developing a creative and enterprising society, the various tiers of governments constantly focused on encouraging an entrepreneurship spirit amongst eligible youths. From the foregoing, institutions of higher learning especially, are given more responsibilities that aid in the growth of enterprising skills in fresh graduates.

Architecture is a practical, procedural, and technical process-oriented discipline that involves the application of creativity in the use of scarce land resources. La Rosa & Pappalardo (2020) and Palme et al. (2020) emphasised the aspect of the preservation and exploitation of the surrounding, the administration of public and private resources relating to the welfare, space planning design, and control of the micro, meso, and macro environments. The most popular defining characteristics of architecture in literature have revealed that it is both the procedure and the result of building or other structure planning, design, and construction. Buildings as physical manifestations of architectural masterpieces are frequently seen as cultural heritages and as pieces of artwork (Lakkala & Philajaniem, 2021).

According to Robert, et al. (2009), to support the growth and economic sustainability of their professions through entrepreneurship and creativity in the context of worldwide competitiveness, many regulatory and professional institutions are advising members to pursue enterprise-oriented career growth. A cursory observation reveals that on the side of students, school leavers can no longer anticipate finding a regular professional job; instead, it is expected of them to consider taking more individual accountability for career and business operations. Many regulatory associations are recognising the necessity of a more enterprise-skill orientation. There is a need to match the aspirations of young graduates regarding the training for their operational economies because "Adaptability and inventiveness have become required talents." Given that the calibre of an architect’s work is directly tied to the standard of living of every citizen, a critical analysis of these descriptions reveals that an architecture professional has a huge responsibility in the lives of residents in the physical surroundings.

In the Nigerian context, an unfortunate comparison observed is that in some urban areas, the peripheries are extremely unplanned, haphazard, and blighted with substandard buildings as evidence of the absence of architectural input, and underdevelopment. Yearly, a transitory observation shows that thousands of architecture graduates roam the streets jobless. Despite knowing that certified architects ought to be the highest sought-after professionals, the general public is unaware of their role and significance. This happens because some Nigerians may not have known what it is like to reside in a house that has been meticulously planned, designed, built, and managed by professional architects.

The reality is that there are very few government jobs available for architects in Nigeria, and many private clients use unlicensed professionals for a higher cost. As a result, not all recent graduates of architecture can find employment with the government or in the private sector. All practitioners are similarly in this predicament. The unpalatable fact is that Nigerians have a very limited understanding of the value of obtaining a degree. We work hard to earn the necessary academic credentials and, after graduation to secure a government job (preferably at the federal level), hopefully through the assistance of an influential person known in a key position in government. However, failure to
recognise how severely this mentality limits the architect's potential. The idea of acquiring entrepreneurial skills in architectural practice (archi-preneurship) plays a significant role as a result of the need to widen the perspectives and begin to entertain and realise the immense potential that exists in society as creators of values rather than merely public servants.

LITERATURE OVERVIEW

Civilisation trends are recognised through the typical features of their architectural work. Architecture, which is the art and science of designing and erecting buildings and other physical structures, broadly refers to the buildings and other elements in the physical environment. The occupation of an architect entails providing expert services associated with the planning, development, and creation of built environments. An architect's tasks can be divided into micro-stage (planning, design, and analysis) as well as macro-stage operations (implementation and physical development, management, construction details and furniture, urban design, and landscaping). It refers to the process of planning, developing, and constructing any type of system related to buildings that take into account aesthetic, technological, socioeconomic, and functional factors as well as considerations of the environment and the demographics. The architecture includes the conception and delivery, and practical aspects of buildings and structures, such as conceptualisation, planning, design, scheduling, cost estimating, and construction administration as well as maintenance. It also necessitates the innovative arrangement and interoperability of space, material, technology, illumination (natural and artificial), and shadow. Architecture aims to produce beauty, give pleasure to the senses, and implement orderliness, clarity and consistency, visibility, and coherence so that people can engage with the local physical surroundings in a useful way. Many people think that students studying business should be involved in entrepreneurial ventures, while professional students ought not to. Creative entrepreneurial skills including opportunity assessment, handling start-ups, and creating innovative products are important features of the majority of business management initiatives. Although they frequently come up with product ideas, students in professional disciplines who are seeking to start their enterprise after graduating tend to be completely in the woods about how to do it (Bozeman et al., 2013). For more commercial growth in the form of more employment generation, architects' highly developed imaginative, and innovative capabilities are required to be redirected. Nnaemeka-Okeke et al. (2019), and İllerisoy et al. (2021) stated that community participation, rehabilitation, and preservation have taken precedence over the simple design and construction of buildings in many advanced economies. Architects have been required to become more creative and enterprisingly industrious to handle the emerging paradigm of new architectural hurdles. According to Gafar et al. (2012), based on the foregoing variations, the architecture curriculum for institutions of learning should be revised to accommodate the teaching of essential business skills to ensure that a generation of young entrepreneurial architects will be able to address the constant changing societal architecture and design needs. According to Okoro (2021), Osemudiamen and Oghojafor (2021), and Okoro (2021), the Nigerian government agreed that all postsecondary institution programmes, even architecture, should include entrepreneurship courses as a requirement in their syllabi.

A contemporary idea called entrepreneurship aims to ensure that a people's and a country's prospect is assured, so that students, graduates, and architects are adequately equipped and furnished for the complexities in the practice of architecture. It is necessary therefore, that schools offering architecture include vocational training courses in their curricula, and for the body regulating the practice of architecture to integrate it into her Mandatory Continuing Professional Development Programmes (MCPDP) knowing that building design, construction, and maintenance are no more the only aspects of architecture. The term “architecture” is no longer solely connected with planning and constructing physical spaces, according to Grozdanic (2015), an architect and environmental journalist. Today's practice of architecture is best exemplified by architectural applications, websites, software, and networking.

Students are given the information, abilities, and inspiration necessary to support their business goals through entrepreneurship education. Entrepreneurship education, according to Uzo-Onyionkwo (2013), is the method of giving people the competence to recognize economic possibilities, and the awareness, consciousness, experience, and expertise to take advantage of them. The Nigerian government declared in 2006 that all students, regardless of their field of expertise, would be required to take a course in entrepreneurship as part of their university education (Okojie, 2009). To enhance and encourage students' training, the majority of universities built centers to coordinate skills development during the academic year of 2007/2008. Okojie (2009) added that the Nigerian University Commission (NUC) coordinated the study of entrepreneurship development in universities. In his article, Onuma (2016) highlighted the goals set by The NUC to promote skill acquisition programmes in Nigeria's tertiary institutions as students' empowerment, job creation, business diversification, and self-motivation and self-esteem. If those goals were accomplished, labour market and poverty would decrease, and the country's economy would grow. To give students the skills, techniques, and drive, entrepreneurship was taught in institutions of higher education.
Entrepreneurship supports self-employment, the reduction of poverty, and the development of trained and semi-skilled labour for inclusive growth (Magaji, 2019). Product independence is achieved through skills development and specialized training. According to the Federal Republic of Nigeria’s education policy of 2004 stated by Nanjwan and Ashi (2019), “integration of the individual into a sound and effective citizen respect for the work of the individual, faith in man’s ability to make rational decisions, moral and spiritual values in interpersonal and human relations, social, cultural, economic, scientific and technological progress” is the philosophy and values of education in Nigeria. The policy stipulated that every programme that qualifies as education and training must offer more than just a paper certificate; it must also be career-focused. This will significantly assuage the employability and unskilled situations.

**MATERIALS AND METHODS**

The literature for this study was systematically reviewed to attain the aim as it is considered the most appropriate strategy. This conforms to studies made by Aduwo et al. (2016) and Dania et al. (2021) that a systematic review connotes a mechanism that is scientifically essential for researchers of the social sciences to provide results that are prompt and can be adopted in research as a ground in taking decisions requiring enormous publications. It also coheres with Barbeito-Caamaño and Chalmeta (2020) on the use of a five-stage technique for data gathering that is, to first develop the research questions; identify interrelated researches; evaluate the content and worth of the researches identified; outline and synthesise the findings of the study, and finally, to summarily explain the incorporated findings of the study. Consequently, a systematic review was carried out to research published articles between 2013 and 2022. A 10-year duration was considered suitable to see the global progression of past interrelated publications on the practice of architecture-related entrepreneurship (archi-preneurship) issues, especially in Nigeria.

The conditions for search inclusion include studies on Nigeria and other developing countries; papers from Academia, Elsevier, ScienceDirect, Google Scholar, MDPI, and ResearchGate databases; publications or conference proceedings whose findings are empirical; and above all the papers should be relevant. Entrepreneurship and architectural education, issues and opportunities of entrepreneurship to build-environment professionals were inputted into the search space, and articles were separately retrieved. Summarily, 215 articles were generated from the searches carried out from the aforementioned databases. The abstracts of the articles were studied to select the articles that were used for the study and reviewed. The 89 articles selected were rated using 3 to tag for very significant, 2 to tag for significant, and 1 to tag for not significant. Those with a rating of 3 considering their objectives and significance were used and reviewed for the study. A thematic content analysis approach was used to explain the information retrieved from the systematic review process.

**ISSUES AND OPPORTUNITIES OF ARCHI-PRENEURSHIP IN NIGERIA**

**Issues of archi-preneurship**

The architecture profession is already undergoing significant competition and trends, thus it is important to keep up with these developments and have a constructive influence on both the present and emerging architectural practice. In the past, when projects were constructed just to house and give shelter, the architectural services to customers and society at large were restricted. However, today, services supplied by architects are rapidly turning into a complicated need. To address the contemporary issues facing the field, an architect must adjust his services as a professional. The issues noted by Piper and Rush, (2001), Larson (2018), and Azzopardi-Muscat et al. (2020) include:

i. Rivalry from allied disciplines like engineering, urban and regional planning, construction, quantity surveying, estate management, and valuation, among others;

ii. Concept of sustainable development in every project specification, for instance, societal inequalities, social, economic, political, and demographic trends, power generation, content, and materials as well as management;

iii. Industrial revolution technologies advancements and adaptation;

iv. patronage of unlicensed architecture school leavers;

v. Renovation Revitalization, restoration, and retrofitting are a paradigm shift, where the conversion of old properties to alternative uses is replacing new building projects;

vi. Flexibility -the requirements to move architectural practice into a diversified career path;

vii. The amount of undeveloped land available for construction is rapidly decreasing:

• urban renewal activities are replacing new project sites,
• In many Central Business Districts (CBD), there is a limited amount of open spaces accessible for physical development;
• land-use regulations and compliance with extant environmental laws are becoming stricter,
• transport infrastructure is unprecedentedly encroaching on the use of land resources, and

viii. The cost has become a significant factor in deciding whether or not to erect a structure.
The seemingly huge redundancy rate in architecture as a career is a result of all these difficulties. This implies that to meet the consumers’ requirements of our society, and uncover the commercial potential in architecture, professional engagements must be expanded. This could be realized by including the development of skills and business strategies into the framework of training programmes and academic curricula. According to Zallio and Clarkson (2021), Pressman (2018), and Costanza-Chock (2020), variety is a collection of human characteristics that affects how people view themselves and other individuals in workplaces as well as their principles and prospects. This implies that outstanding leadership skills, design competence, technical expertise, people management, good interpersonal skills, business acumen, ingenuity, and invention are the physical attributes of a successful architect, and should also be willing to take chances and consider things from several viewpoints.

However, when using generic terms like opportunity identification, innovative and creative thinking, novelty, uniqueness, originality, organizing, generating, and risk-taking, the definitions of entrepreneurial development proliferate yet extremely inconsistent, according to some scholars (Olaniran & Mncube, 2018; Ezeanyeji et al., 2019; Ijeoma et al., 2020; Mengesha, 2020). It is so challenging to come up with a definition that is universally recognised, although Okeke and Nwankwo (2017) proposed description includes the key components. That is, entrepreneurship refers to the method of producing new things with intrinsic worth by investing the appropriate time, effort, and resources, taking on the associated economic, psychological, and social risks, and reaping the benefits of financial and personal independence. The strongest global economic driver has been seen in the last twenty years is entrepreneurship. Further emphasizing the importance of imagination, enthusiasm, effort, and taking risks in the development and application of new products and services, inventions, and innovative solutions. Consequently, entrepreneurialism might be defined more simply as accessing a new and enhanced line of procedures to improve an existing product with new features that increase the quality of life of citizens. However, many business owners view independence and fulfillment to be the most significant benefits (Baker & Welter, 2018; Shepherd, 2019). In addition, scholars like Emmanuel and Swai (2019), Almahry et al. (2018), Syam et al. (2018), and İlerisoy et al. (2021) have characterised an entrepreneur as someone who is multitalented, self-assured, and creative with inventive and risk-taking skills. An architect leads a life that is characterized by courage in the face of challenges and, more significantly, unwavering dedication. The aforementioned are distinctive qualities distinctive of an architect's personality, hence an architect is an entrepreneur who has not yet explored and discovered their entire creative potential abilities and skills in other endeavours, particularly business undertakings. Based on this, if an entrepreneur thinks like an architect, why would the architect not explore the twofold advantages, and take the ingenuity to act confidently as an entrepreneurial architect? It is therefore essential to cultivate architecture-oriented enterprise initiatives by fixating on entrepreneurial skills at all levels of their training to inspire, motivate, and build confidence and competencies to become future entrepreneurs instead of scampering for limited and unavailable public and private jobs.

Opportunities of archi-preneurship

The issue that arises is: aside from the standard routine of architectural activities of design, physical development, construction and building services, project management, and teaching architecture, what other entrepreneurial opportunities are accessible for architects? Numerous job opportunities in the field of architecture have self-employment status (Gafar et al., 2012), and these can be pursued as home-based businesses (Ayo-Odifiri et al., 2022), that is, a business-start-up that requires minimum financial implication for small-scale architectural self-employment. The simplest and most cost-efficient location for such an enterprise is to create a home base activity space separate from the living apartment. This is to assure clients of professional competence and business legitimacy.

Some entrepreneurial enterprises an architect could engage in include:

i. design and decoration services of interior spaces (floor, wall, and ceiling, etc), of all building types, activities spaces (restaurants, event centres, and exhibition stands, etc), transportation modes (vehicles, trains, airplanes, ships), and workshops;

ii. building material enterprises, and supply;

iii. technical skilling and up-skilling of archi-entrepreneurial abilities;

iv. modeling and animation (interior and exterior);

v. graphics design;

vi. photography;

vii. landscaping;

viii. forensic architecture, and building pathology;

ix. screeding, painting, and 3D rendering;

x. art and craft (design and furniture making -kitchen cabinet, weaving of cane-chair and table, mat, etc) door and window treatments;

xi. film production location;
Many recent architecture graduates and aspiring architects still only view the industry from the conventional design and construction perspective. Hence, the main cause is the lack of career options. The different entrepreneurial prospects within the field, such as interior design, landscape planning, furniture making, textile design, tourism, and fabrication, require specialization and diversification (furniture works, aluminium, and metal fabrication). Despite risks to the profession's existence and survival from the environment, society, the economy, and politics, there is anxiety about recognising diverse opportunities. Young and experienced architects must improve their enterprising skills to channel their creativity and capabilities into the commercialization of their work (design, talent, and skills) and to analyse arising issues to increase employment and advance the national economy.

To inculcate a paradigm shift of skill commercialisation, innovative thinking, and entrepreneurship should be purposefully integrated into conventional education curricula (Wilson, 2008). Therefore, some imperatives of entrepreneurial skill an architect could engage are highlighted thus;

i. The progress in architectural practice is impeded by inadequate information and attention to societal diversity and specialty as well as the built environment. therefore, professional diversification and specialisation is the proponent of skill acquisition

ii. Creation of employment opportunities: the impact of entrepreneurship on employment generation, and economic and social development of many countries is unparalleled. By creating new products and services, architects may significantly increase job prospects for everyone involved in the physical environment as well as for society at large.

iii. Occupational sustainability refers to the ability to persevere, thrive, and uphold one's professional obligations in a society that values competition. Through entrepreneurship, the architecture profession would have access to new revenue streams. Controlling the built environment, re-evaluating professional work methods through the exploration of novel opportunities in the fields of tourism, fashion, and agriculture, as well as utilizing cutting-edge technology, are necessary for this. If taken advantage of, all the new prospects would not only benefit the architects and architecture but also boost the county's investment climate.

iv. Self-employment is facilitated by entrepreneurial consciousness, which offers a vehicle for self-realisation, self-reliance, self-sufficiency, self-satisfaction, self-fulfillment, and the discovery of untapped personality potentials.

v. Professional relevance refers to how the architectural profession relates to, applies to, and progresses toward leadership. The nation's empowerment blueprint requires a purposeful, meaningful, and practical show of creativity transcending design synergy if indeed the architect is to continue serving as the building industry team's leader, with a socioeconomic and political influence in the building sector. The architect must cultivate and use relevance as a tool to lead other professionals.

vi. Professional adaptability and versatility are the attributes of being able to execute and initiate positive outcomes and a sense of achievement as a professional. In a rapidly changing market where only those who have variable, flexible, adjustable, versatile, modifiable, resilient, changeable, convertible, compliant, adaptable skills, and foresight to identify prospects and act immediately with innovative skills would thrive competitively and stay in business in a precarious socio-economic and political environment, therefore, the Architect must think and act like an entrepreneur.

vii. Entrepreneurship keeps the economy alive by generating income for a large number of people looking for business chances. However, it is not the only reason why people participate in business activities. According to Anderson (2008), self-employed architects are more likely to have higher job contentment than hired architects, proving that great businessmen are considerably more economically independent than their counterparts in wage jobs. One goal of entrepreneurship is to increase employment, which will benefit the economy.

viii. According to evidence from Sappleton and Lourenço (2016), acquiring skills paves the way for self-employment, which encourages people to exert more control over their work, improves productivity, and boosts satisfaction at work as well as leads to better performance. These factors include a degree of independence, a lack of a bureaucratic system, and the ability to set one's work hours.
CONCLUSIONS AND RECOMMENDATIONS

Urbanisation, technological innovations, and the industrial revolution, unprecedented economic drift, social inequality and exclusion, political instability, inadequate patronage of the architecture profession by private and public sectors, and also ineffective enforcement of built-environment-related extant laws have presented enormous challenges and professional competitiveness. Therefore, an urgent need arises for architects to think differently, discover, invent, and develop enterprising skills and innovative business ideas to sustain themselves and contribute to society. It is even worse because launching a new enterprise puts a great deal of strain on the investor's body, mind, and emotions. This is because it requires a variety of tasks, including planning, marketing, acquiring capital, and putting in significant time to establish a strong foothold in the intended market. Despite the various obstacles that must be faced, the business owner is inspired to make the trade successful by their devotion and self-determination.

Despite the aforementioned, the architect's significant degree of imaginative skill, talents, and competencies lead to the establishment of streams of job prospects and the deployment of other marketable skills. The goal of entrepreneurship is to increase employment, which has a good economic impact on the country. Successful business people also have greater financial independence than people with salaried positions. More crucially, it shows that independent architects are happier in their jobs than those who work for firms; hence, the following are some workable policy initiatives;

i. Government legislation and the Architects Registration Council of Nigeria (ARCON) should have a deliberate policy to support archi-preneural practice;

ii. The incorporation of entrepreneurship into the architecture training curriculum as well as skilling, re-skilling, and up-skilling of architectural educators to acquire relevant entrepreneurial proficiency through case reports, cooperative learning, marketing plans, content development, business simulations, presentations, and engagement with innovative business owners;

iii. To create professional archi-preneur who can identify cutting-edge career opportunities in the industry, entrepreneurship development should be a prominent topical feature of the MCPD programs like the Architects' Colloquium, Archi-built, and the Annual General Meetings (AGM); and

Financial assistance from non-governmental organisations and government should be provided to architects, and zero-interest loans to prospective archi-preneur as well as motivational rewards for the Best Innovative Architect (BIA);

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