

# An Innovative Entrepreneurship Model to Promote Business Start-up via Research Project of Undergraduates in Nigeria

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**Abstract:** There are many facets to the concept of entrepreneurship. From the perspective of innovation, innovative entrepreneurship represents an invincible approach of developing, growing and sustaining at least, a new business enterprise, out of diverse business opportunities in an environment. This study recognises final year research project of undergraduates, in Nigerian Universities' academic environment, as a promising avenue for the students to own businesses after graduation. To drive this, there is a need for a well-designed innovative entrepreneurship model. However, the extant literature is deficient of information on this phenomenon. Hence, this study conceptualises an innovative entrepreneurship model to be used in adding commercial value to final year research project of undergraduates in Nigeria. This is a qualitative research that is based on systematic review of relevant literature on entrepreneurship. The findings were in two parts – the description of ingredients of the proposed model and an innovative entrepreneurship model for this study. For optimum application and outcome of the proposed model, the study concluded that the model could be adapted to fit into academic curriculum and strategic plan of each tertiary institution in the country.

**Keywords:** entrepreneurship, innovation, innovative entrepreneurship model, business enterprise.

## **Introduction**

Nowadays, the usage and application of the concept “entrepreneurship”, among scholars, policy makers, and other individual stakeholders, have continued to generate all sorts of meaning of entrepreneurship in the literature. This scenario depends on the focus and perspective of the researcher or an individual defining the concept. To this end, most of the definitions of entrepreneurship originate from the fundamental trios of economic, sociological and psychological context. Others were deduced from the management and social perspective. Thus, entrepreneurship is a multidimensional concept (Bula, 2012). Entrepreneurship could be narrowly defined as a concept that is all about opportunity identification, business development, self-employment, venture creation and growth. In other words, it is all about becoming an entrepreneur (QAA, 2012). Besides, for the wide definition of entrepreneurship, it is about personal development, creativity, self-reliance, business thinking, taking initiative, action-oriented and so on. That is, to be entrepreneurial in all endeavours of life (Lackeus, 2015). This wide definition of entrepreneurship follows the research and work of Schumpeter (1934) that centre on innovation. It encompasses a set of actions that combines various resources together innovatively to yield new outcome or solution (good, service or method), which would not be a replicate of existing ones (Bağ, 2016). In a recent time, the definition of entrepreneurship in the context of innovation has led to advent of a state-of-

the-art construct, innovative entrepreneurship. This construct suggests that entrepreneurial activity is going simultaneously with innovative activity (Block, et al., 2017). In other words, it represents an integrated fast process of transforming business opportunities innovatively into entrepreneurial value for others. The created value depicts innovative business venture of environmental relevance (Baumeister et al., 2013). This implies that innovative entrepreneurship is an integrated process that facilitates generation of wealth, economic, societal, and cultural value for an individual or a nation (Block, et al., 2017).

Moreover, in the extant literature, academic was identified as one of the key drivers of innovative entrepreneurship in an economy. Academic represents a special group of individuals called intellectuals, which have more frequent contact with knowledge and research-based opportunities to create value (Block, et al., 2017). In addition, Lackeus (2015) reported that concerted efforts of academic to promote entrepreneurship cum business venture creation have led to the development of many innovative entrepreneurship (value-creation) tools. These include Effectuation, Customer Development, Business Model Generation, Lean Start-up, Appreciative Inquiry and Design Thinking.

It is noteworthy that none of the aforementioned tools or models exclusively focus on creating commercial value from final year research project of undergraduates. The final year research project of undergraduate is an integral academic requirements for undergraduate of tertiary institutions. Entrepreneurially, the project could be a source of business

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opportunity for students after graduation, if well designed, implemented and executed in an innovative manner.

In a developing country like Nigeria, the common practice in doing final year research project is to fulfil academic requirement. Consequently, many stakeholders (supervisors and supervisees), especially supervisees, involving in most of the projects do not pay full attention to value creation, in terms of business opportunity. To this end, there is a need for innovative entrepreneurship model that is capable of achieving the duos of fulfilling academic requirement and creating business opportunity for students after graduation. This would ultimately make the graduate of the country to be more resourceful, that is, innovative business creator and employer of labour.

It is against this backdrop that this study was set to develop an innovative entrepreneurship model that would focus exclusively on achieving resourceful undergraduates of universities in Nigeria via entrepreneurially structured and innovative final year research projects. The developed model is expected, among other benefits, to guide the researchers (supervisors and supervisee) on action-based cum value-added research activities that would ensure resourcefulness of university's products of the country. This is essential, as it would enable the graduates to have business to fall back on, in lieu of seeking for unavailable paid jobs.

### **Materials and Methods**

This is a qualitative research, which involves systematic review of relevant literature on entrepreneurship. Systematic review on a particular

phenomenon is a scientific approach that involves detailed examination, summary and synthesis of many studies of different sources (McFarland, 2015; Koricheva & Gurevitch, 2013). Besides, validity of systematic review research approach requires establishment of publication selection criteria (Akobeng, 2005). Thus, for this study, the first criterion set is about the keywords to search for. These include entrepreneurship and related subjects on entrepreneurship like innovation and business model. The second criterion involves a comprehensive search with more than one database to ensure inclusion of many studies and to minimise selection bias. The third criterion is on selection of scientific articles published in top-rated academic journals in English Language from both developed and developing economy.

### **Results and discussions**

This section is in two parts: the description of ingredients of the proposed model and an innovative entrepreneurship model for this study.

## The Description of Ingredients of the Proposed Model

In this section, the key areas of entrepreneurship that give relevant insight to the development and building of the proposed model for this study are presented.

### *Entrepreneurial Process*

By and large, entrepreneurship is all about process of creating a new venture. This process is a course of action. It involves all functions, activities and actions associated with identifying and evaluating perceived opportunities. Also, it encompasses the bringing together of resources necessary for the successful formation of a new business venture. (Tsfayohannes & Driscoll, 2010; Cornwall & Naughton, 2003). The process of entrepreneurship aids in taking strategic decisions regarding the allocation of scarce resources when pursuing any value adding opportunity (Kodithuwakhu & Rosa, 2002).

Different types of entrepreneurial process are well known today. In the extant literature, authors had identified between two and five distinct stages of entrepreneurial process. This is briefly discussed below as noted in Kunene (2009):

1. Kruger et al (2005) pinpointed two broad dimensions of the entrepreneurial process, namely opportunity recognition and resource acquisition.
2. Gruber (2002) identified three distinct stages – the pre-founding stage (opportunity identification and evaluation stage); a founding stage (business plan, resource gathering, incorporation and market entry stage); and an early

development stage (building the business and market penetration stage). Baron (2004) named the three stages of the entrepreneurial process as screening ideas for feasibility; assembling needed resources; and actually developing a new business.

3. Bhave (1995) identifies four stages known as opportunity identification, technology set up, organization creation and the exchange stages. This is supported by Hisrich et al. (2002) who articulated four stages of the entrepreneurial process as identifying and evaluating the opportunity; developing the business plan; determining the resources required; and managing the resulting enterprise.
4. Rwigema & Venter (2004) identify five specific steps. These are identifying, measuring and refining an opportunity from multiple ideas; formulating a business plan; marshalling the resources; organizing and mobilizing a team; and overseeing the new venture creation and growth. In the same vein Ardichvili et al. (2003) illustrated their five-step path as market needs, business concept, business plans, business formed and successful enterprises.

This study adopted a four-stage entrepreneurial process, which was put together by Kunene (2009) from the aforementioned types of stage/step involved in creating a new venture. The adoption is based on the recognition and relevance of innovation at initial stage by the author, as innovation is key to

innovative entrepreneurship approach.

The four-stage entrepreneurial process is as follows:

1. Innovation: This involves innovative process of generating and screening of business ideas and identification of a market opportunity.
2. Course of action: This includes gathering of resources to start a business, preparation of business plan and evaluation of business risks.
3. Implementation: This includes setting up and launching of the new business enterprise, implementation of the business plan and managing the venture.
4. Growth: This includes maximizing profits and continuous growing of the business so as to add more opportunities.

### ***Entrepreneurial Function***

Entrepreneurial function could be understood from a resource-based theory of entrepreneurship, which was proposed by Alvarez & Busenitz (2001). It states that access to resources is an important predictor of opportunity-based entrepreneurs. According to the proponents, resources include ability to identify opportunities, opportunity-seeking behaviour and the process of organizing the required resources for productive purpose. Also, entrepreneurial function is also referred to as the discovery and exploitation of opportunities or the creation of a business enterprise (Cuervo et al., 2007; Idam 2014). Thus, accessibility to resources like innovatively designed final year project could improve

resourcefulness of an individual.

### ***Entrepreneurial Behaviour***

This is the behaviour that combines innovation, risk-taking and proactiveness together. In other words, it embraces innovative entrepreneur (the classic theories of Schumpeter), the risk-taking entrepreneur that occupies a position of uncertainty (as proposed by Knight (1921)) and the entrepreneur with initiative and imagination who creates new opportunities. Moreover, the four conditions listed by Schumpeter (1934), which reflect entrepreneurial behaviour include the introduction of new products, the introduction of new mode of production, the opening up of new market and the reorganization of an existing firm to respond to changing technology.

Cuervo et al. (2007) and Idam (2014) further stated that a behavioural model of entrepreneurship could be explained in the context of the theory of social behaviour. With this theory, supply of entrepreneurs is a function of social, political and economic structure. The behavioural model is concerned with the obviously expressed activities and relationship of individual with the environment (social structures and physical conditions).

The authors also noted that individuals perform various activities of which some are accepted by the society while others are not. The accepted activities are rewarded. The rewards act as reinforcing stimulus increasing the probability of repeating that behavioural pattern (entrepreneurial behaviour).

### ***Entrepreneurial Initiative***

Cuervo et al. (2007) and Idam (2014) stated that entrepreneurial initiative is the

capacity of an individual to innovate in order to create a new business venture. The authors used innovation theory of Schumpeter to explain this scenario. According to the theory, an entrepreneur is basically an innovator who introduces new solutions (inventions and discoveries) of commercial value into an environment. The solution could be a new quality good/service, method of production, market, source of supply of raw materials and organisation that creates or breaks a monopoly position. Thus, the final year research project, couples with excellent entrepreneurial initiative from both supervisor and supervisee, should be able to provide business solution of commercial value on the long run.

### ***Entrepreneurial Action***

This is the willingness of an individual to start a business enterprise, face uncertainty and accepting risks. It is a powerful personal attribute that distinguishes an entrepreneur from other people in a society.

Entrepreneurship action could be understood, using the Need for Achievement Theory, which was developed by David. C. McClelland (McClelland, 1961). The theory is based on economic growth and the factors that influence it. In this context, he attempted to find the internal factor, that is, human value and motive that lead man to exploit opportunities as well as taking advantage of favourable business conditions in an environment. He then adduced the need for achievement (n-achievement) to it.

This n-achievement is called as a desire to do well, not so much for the sake of social recognition or prestige, but for the

sake of an inner feeling of personal accomplishment. It is this motive of n-achievement that guides the actions of entrepreneur. People with high n-achievement behave in an entrepreneurial way. Therefore, it is better to develop n-achievement among individuals to ensure high scale of economic development. People having high need for achievement are more likely to succeed as entrepreneurs.

McClelland further stated that individuals with high need achievement would not be motivated by monetary incentives, but monetary rewards serve as a symbol of achievement for them. Also, they are not interested much for social recognition or prestige, but their ultimate goal is personal accomplishment (Idam, 2014).

### ***Entrepreneurial Value Creation***

Schumpeter (1934), a development economist, viewed entrepreneurship from the point of view of value creation. He defined an entrepreneur as a risk-taking innovator needed for rapid economic development, through the process of creative destruction. This implies that obsolete technologies and business ideas are replaced by new ones (value creation). Hence, an entrepreneur has the potential to develop an economy through innovation.

While Schumpeter (1934, 1942) perceived the entrepreneur as an agent of change, who moves the market away from equilibrium, Drucker (1985) argued that the entrepreneur is not necessarily an agent of change, but one that searches for change, responds to it and exploits it as an opportunity. He agreed with Knight (1921) who asserted that entrepreneurs attempt to predict and act upon change, bearing the uncertainty of market

### ***Entrepreneurship Education***

Education on entrepreneurship, either informal or formal education, represents an indispensable means through which knowledge and experiences about business enterprise are acquired or disseminated. Across the globe, especially in developing countries such as Nigeria, entrepreneurship education has continued to gain ground in formal educational setting, this is due to overwhelming benefits of the education. It enhances economic growth, individual growth, job creation, societal resilience and school relevance among other benefits.

There are many perspectives to entrepreneurship education. In a narrow way, some researchers viewed it as an avenue through which students would be encouraged and equipped with skills to start-up their personal business enterprises. With this definition, entrepreneurship is regarded as self-employment (Mahieu, 2006; QAA, 2012). That is, entrepreneurship involves processes of starting a personal business or creating a new business organisation for oneself. On the other hands, the wide definition of entrepreneurship education focuses on building the capacity of an individual to be constantly creative, willing, opportunity oriented, proactive and innovative, for sustainability of self-

business or entrepreneurially fit to do business for/with others. Thus, this study takes entrepreneurship education as a structure put in place to work on students' psyche, so as to imbibe entrepreneurial culture, build capacities of students on business enterprises and activate their willingness to create business values especially for themselves (Lackéus, 2015).

### ***Entrepreneurial Competencies***

The main objective of various types of entrepreneurship education commonly employ around the world is to develop some levels of entrepreneurial competencies in the learners. Table 01 contains a framework outlining some competencies often considered to be entrepreneurial. In line with the table, entrepreneurial competencies are defined as knowledge, skills and attitudes that affect the willingness and ability of an individual to start and undertake an entrepreneurial venture (Sánchez, 2011; Fisher et al., 2008).

In the table, entrepreneurial competencies were categorised into cognitive and non-cognitive competencies. While cognitive competencies are easy to teach and evaluate, non-cognitive competencies require learning-by-doing and might be more difficult to assess (Moberg, 2014).

Table 01: An overview of vital entrepreneurial competencies in terms of cognitive and non-cognitive competencies.

<b>Entrepreneurial Competencies</b>			
<b>Basis</b>	<b>Category</b>	<b>Sub-Category</b>	<b>Brief Explanation</b>
Cognitive competencies	Knowledge	Mental models	It involves knowledge on how to get things done without resources.
		Declarative knowledge	This is knowledge on fundamentals of entrepreneurship, such as idea generation and value creation.
		Self-insight	Knowledge of personal fitness to be an entrepreneur.
	Skills	Marketing skills	It represents skills on how to conduct effective market and marketing research. It also involves skills on different marketing strategies.
		Resource skills	These entail skills on writing and implementing an efficient business plan.
		Opportunity skills	It focuses on skills require to develop opportunity into a product or service.
		Interpersonal skills	These are leadership skills, such as effective communication skill.
		Learning skills	It involves listening, adaptation and coping skills.
Non-cognitive competencies	Attitudes	Strategic skills	Skills on setting and implementing goal, mission and vision.
		Entrepreneurial passion	This is a need for achievement. It expresses the notion "I want"
		Self-efficacy	It indicates belief in one's ability to perform certain task successfully ("I can").



Entrepreneurial identity	This describes deep beliefs, role identity and values ("I am or I value").
Proactiveness	This is to be action-oriented, initiator and proactive ("I do").
Uncertainty / ambiguity tolerance	This is to be comfortable with uncertainty and ambiguity. It also expresses Adaptability ("I dare").
Innovativeness	This is to be visionary. Also, it is an indication of novel thoughts or actions ("I create").
Perseverance	Ability to persist and overcome antagonistic situation ("I overcome").

Source: Lackeus, 2015

**Academic Entrepreneurship**

According to Barcik et al. (2017) and Miranda et al., (2017), academic entrepreneurship is a special type of entrepreneurship. The authors described it as the process an individual or a group of individuals (linked through their research activities) in a university or research centre uses generated knowledge from research endeavours to create or set up business ventures. Moreover, Barcik et al. (2017) related academic entrepreneurship to the process of transfer of knowledge and technology up to their commercialization, in a formalized way. The transfer may include: creation of spin – off companies, spin – on companies, licensing, selling technology and so on.

In a broader way, academic entrepreneurship may be viewed as the academic based entrepreneurship. With this approach, it includes all enterprises created by the academics and students

and not only the ones that are based on exploitation of technology created at university (Osiri et al., 2014). It thereby refers to all possible entrepreneurial actions, which could result into any financial reward. This approach is much wider and includes many more activities that are not in the scope of typical transfer of technology (Bağ, 2016).

**Innovative Entrepreneurship**

Opportunities, distinguished individual characteristics and environment play major roles in the concept of innovative entrepreneurship (Shane 2003). Opportunities that are knowledge-based, technological-driven, or research-driven were identified as strong antecedents of innovative entrepreneurship in the literature (Acs et al. 2009). Also, innovative entrepreneurship is more likely to occur if an entrepreneur or would-be entrepreneur possess some socio-economic and personality characteristics such as academic education and technical background (Koellinger 2008).

In addition to opportunities and individual characteristics, environmental quality is also paramount to the development of innovative entrepreneurship. Thus, the available or accessible resources from stakeholders, alliances, and networks were reported to influence the gestation of innovative entrepreneurship (Elfring & Hulsink 2003). Furthermore, industrial clusters, in an environment, for example, could facilitate knowledge transfer and knowledge spillover, leading to innovative entrepreneurship (Block et al., 2017). However, due to its exploratory character and the high level of novelty involved, innovative entrepreneurship requires effective and efficient handling of resources such as human capital and finance (Block et al., 2017).

## An Innovative Entrepreneurship Model for Final Year Research Project

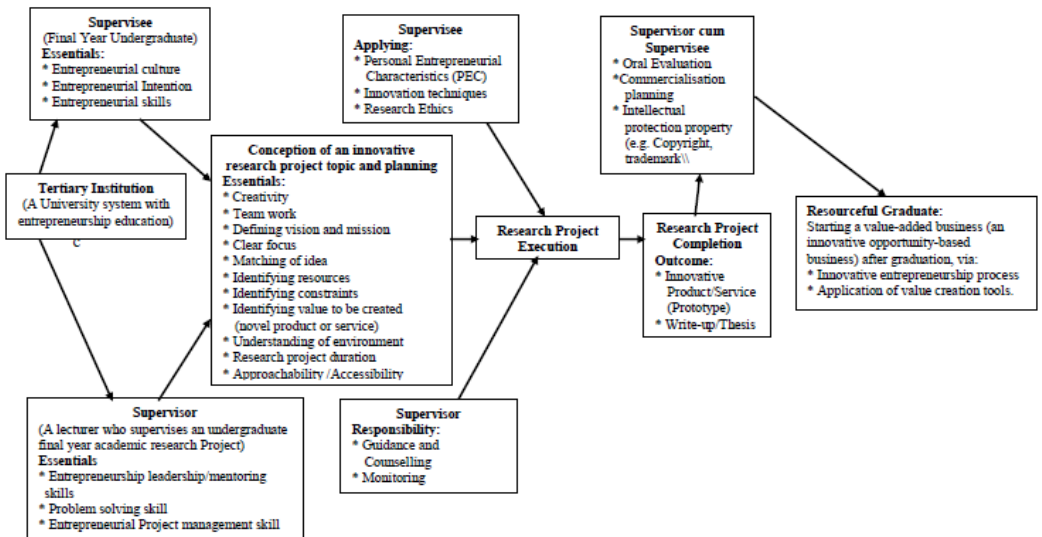


Figure 01: An innovative entrepreneurship model developed for this study

An innovative entrepreneurship model that is expected to achieve resourceful graduate of University institutions in Nigeria is presented in Figure 01. That is, a model, which could promote business start-up among graduates of Nigeria via resourceful handling of their final year research projects.

The model shows that entrepreneurship education is vital for both the supervisor and supervisee. In other words, entrepreneurship education plays major roles during and after the completion of the research project. This implies that successful relationship between the supervisor and supervisee during and after the research activities could be maintained through the binding catalyst, which is entrepreneurship education. This education brings about entrepreneurial culture, competences as well as value creation tools among other elements of the model.

Specifically, the model is made up of four sequential phases. Conception of innovative research topic and research planning constitute the first phase. In this stage, skills and experiences acquired by the key stakeholders in question (supervisor and supervisee) via entrepreneurship education form a leverage in formulating research topic and planning for the research activities. Some of the essential skills and expertise require to be demonstrated here by the stakeholders include creativity, team work spirit, clear focus, environmental understanding, identification and acquisition of required resources. In addition, supervisor should possess excellent quality of approachability and accessibility.

URL <http://journals.covenantuniversity.edu.ng/index.php/cjoe>

The second phase represents execution phase of the research project. The responsibility of supervisor at this level is to guide, counsel and mentor supervisee throughout all the processes of carrying out the research. Simultaneously, the supervisee would apply his or her personal entrepreneurial characteristics, innovative techniques and research ethics in doing the research.

The third phase is the research completion phase. Successful completion of the research project is expected to yield a research thesis and a potential product or service with commercial value from the project. Other activities at this third phase include oral evaluation, commercialisation planning and protection of the intellectual property of the project.

The fourth phase depicts resourceful graduate phase or business start-up phase. At this stage, graduate is expected to start own innovative business enterprise based on the business opportunity derived from his or her undergraduate research project.

The other benefit of the model is that good quality research articles could be published in learned journals with high impact factors for different usage including academic advancement, policy formulation and further academic research for different stakeholders. This in turn is capable of promoting and increasing the number of academic entrepreneur in Nigeria, which is critical for economic development and growth of the country.

## Conclusion

An innovative entrepreneurship model was developed from the key elements of entrepreneurship that were identified in the extant literature explored for this study. The novel model represents a resourceful strategy of transforming final year academic research of undergraduates in Nigerian universities from traditional approach to value-added approach. That is, the approach that would enable the graduate to

leverage on resourceful outcome of the final year project and start-up a viable self-business. The study noted that due to dynamic nature of academic ecosystem as well as peculiarities of various tertiary institutions in Nigeria, the proposed model could be adapted accordingly to meet their needs. Finally, the proposed model could form a basis for further research study, especially empirical study in the subject domain.

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