INSTITUTION-COMMUNITY ENTREPRENEURSHIP EDUCATION ECOSYSTEM (ICEEE) MODEL FOR EFFECTIVE ENTREPRENEURIAL GRADUATES’ DEVELOPMENT IN TERTIARY INSTITUTION

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Abstract
The paper is aimed at promoting Institution-Community Entrepreneurship Education Ecosystem (ICEEE) model for effective entrepreneurial graduates’ development. This is a partnership between Institution and its host community for the purpose of effective entrepreneurship education. This is informed by the limitation of classroom environment in ensuring the development of all the domains of potential entrepreneurs who can solve the socio-economic needs of their immediate environment. To achieve the purpose of this paper, the concept of entrepreneurship ecosystem was reviewed, the ICEEE model generated based on this partnership was discussed, the roles of every stakeholder in the entrepreneurship education ecosystem were highlighted and the precondition for success in creating this entrepreneurship education ecosystem stated. This model has been partially tested in Federal College of Education (Tech.), Omoku leading to four consecutive students’ products exhibition. The model is applicable in diverse fields for entrepreneurship education and training. However, recommendations were offered for its successful design and utilization in any tertiary institutions. Among others, it was recommended that the design and implementation of this type of entrepreneurship education ecosystem should be championed by the Centre for Entrepreneurship Research and Development in each tertiary institution.

KEYWORDS: business startups, business environment, community resource utilization, job creation

Introduction
The prevailing high rate of low entrepreneurial activities in Nigeria has significantly affected new enterprise creation and community natural resource utilization. The spill over effect of these low activities can be seen in the demographic burst of unemployed graduates in Nigeria. For instance, the unemployment figure of 17.7million Nigerians within the age of 15 – 65 years issued by National Bureau of Statistics as at the end of first quarter of 2015 signal an endemic social and economic challenge in the nation which is not abating (Eze, 2015). Its adverse consequences can be seen from the increased rate of criminal activities and other social vices such as kidnapping, robbery, contract childbirth, prostitutions, militancy, 419, and terrorism perpetrated mostly by youths.
To stimulate the creation of new enterprises by graduates as source of self-employment, job creation and economic diversification, the Federal and State governments through their different programmes for graduates empowerment, have continued to advocate the need for increased entrepreneurship among Nigerian graduates (Premium Times, March, 17th, 2016). Entrepreneurship has been recognized to be concerned with the creation and sustainability of an enterprise through innovative approaches aimed at solving societal socio-economic challenges under conditions of risks and uncertainty (Dolliner, 2008; Pac, 2016). Cooney (2012) noted that the economic challenges facing many countries across the globe have lead to greater emphasis on the need for increased entrepreneurial activities as a prominent policy for many governments. Supporting this, Odia and Odia (2013) noted that entrepreneurship is embraced by all because of its characteristics of sustaining enterprise creation, job creation and wealth creation which is the only genuine hope for the restoration of any collapsing economy.

Benjamin and Onyeizugbe (2013); Pac (2016) all noted that entrepreneurship is a process that is carried out by entrepreneurs who see opportunities where others see problems and chaos. Luisa, Teresa and Pedro (2010) quoting the words of Peter Drunker (1985) noted that entrepreneurship is “not magic, not mysterious, and has nothing to do with the genes, it is a discipline and like any other discipline, it can be learned”. Hence, successful entrepreneurs can be developed through education and training and the school system has an important role to play in this regard. Odia and Odia (2013) supported this view when they noted that the need for the growth of entrepreneurial activities in Nigeria has led to the inclusion of entrepreneurship education for all students across tertiary institutions. They further noted that in the narrower sense, this education is designed to develop students’ competencies and entrepreneurial intention in starting and sustaining their own business for job creation.

Entrepreneurship as a tertiary education subject is offered as General Studies course in the University while in Colleges of Education it is offered both as a general course and department course. Supporting this, Okoro (2015); Pac (2016) all noted that in Colleges of Education, students are required to offer entrepreneurship education both as a general course and a compulsory departmental course. The author further observed that the aim is to ensure that students on graduation have acquired the necessary skills, knowledge and attitude to enable them set up their own businesses and run them successfully. Gibb (2007) outlined four basic objective of any effective entrepreneurship education as:

i. to give the students an understanding of how opportunity for enterprise creation at a micro and small level are recognized and evaluated;
ii. to create in the students the capacity to start a new venture of their own;
iii. to develop in the recipients the general understanding of business; and
iv. to develop in the students personal enterprising capacity.

In addition to these objectives, MacPherson (2009) noted that the curriculum content should aim at developing proactive entrepreneurial minded students by focusing on nine basic areas of learning. These are: acquiring business-specific knowledge; learning business mechanics; learning about business context, learning about business customers, and the competition; studying people; studying leadership principles; reflecting on business enterprise values; and discovering how to create and promote own innovative solutions through new business startup. A critical assessment of the earlier stated objectives of entrepreneurship education and the learning areas suggested by MacPherson show that effective entrepreneurship education cannot be limited to the four-walls of the classroom. Supporting this view, Politis (2005) opined that stimulating entrepreneurial activities only through classroom based education are not likely to have any strong and direct impact on the economy. If impact must be seen through the development of new enterprises, entrepreneurial activities must be carried out by students through real life enterprise creation activities.

Research results on entrepreneurship education have shown that it is easier to disseminate entrepreneurial information through education inside the classroom, however the much needed entrepreneurial experiences related to practical knowledge, skills and attitude for active entrepreneurship are acquired through the art of entrepreneurial practice in learning through real-life situations (Rea, 2000; Shane, 2003). Gibb (2007) also noted that the art of entrepreneurial practice is mainly learned in the environments that support entrepreneurship through inductive, practical and real life experiences. These facts cannot be ignored when one considers the limitation of the classroom environment to support innovative and creative learning approaches that give students exposure to practical entrepreneurship activities. Cooney (2012) opined that the pedagogical approach needed for entrepreneurship education in today’s school system is one that can help develop students’ mindset, behaviour, skill and capabilities and can do spirit to create value in a range of contexts.

In the light of the foregoing discourse, Araba (2013) emphasized the need to involve stakeholders inside and outside of higher education institutions in the development of entrepreneurs with the requisite knowledge, skills, attitude and experience for success. Although, collaboration with host communities have been seen in different aspect of our education system, such as in placement of students for Students’ Industrial Work Experiences (Nwosu and Ojo, 2014; Adebisi, 2015), there is no evidence of collaboration between tertiary institutions, host communities and funding institutions in areas of entrepreneurship education and researches. Hence, the need to create such collaborative atmosphere for effective entrepreneurship education and researches cannot be underestimated, if the nation is to enjoy rapid increase in entrepreneurial activities that
are capable of promoting new venture creation for new jobs opportunities. Therefore, the major purpose of this paper is to examine the creation of institution-community based entrepreneurship education ecosystem that involves partnership between Public tertiary institutions and their host communities. Specifically, the paper seeks to:

i. Review the concept of entrepreneurship education ecosystem.

ii. Generate a model for entrepreneurship education ecosystem based on tested procedures at Federal College of Education (Tech,), Omoku for replication in Nigerian tertiary institutions.

iii. Discuss the role of every stakeholder in the entrepreneurship education ecosystem.

iv. Discuss the precondition for success of the entrepreneurship education ecosystem in potential entrepreneurs’ development.

**Concept of Entrepreneurship Education Ecosystem**

The concept of ecosystem emanated from the natural sciences, it was first used in 1930 by Arthur Ray Clapham in Britain. Trudgill (2007) noted that in the study of natural sciences, it looks specifically at the exchanges between living organisms and their environment inside the ecosystem. Morin and Hulot (2007) noted that the concept has since gained paradigm status covering the complex interactions between its living and non-living components of a system. Sabine and Olivier (2015) opined that this new paradigm status allowed the term ecosystem to be explored as a metaphorical potential of biological ecosystems for other disciplines. It is for this reason that the field of entrepreneurship can adopt this terminology to describe an environment that is suitable for increased entrepreneurial activities and new business creation. For instance, it is worthy of note that entrepreneurial ecosystem was explicitly mentioned by Jude Valdez (1988) in one of his articles titled “The entrepreneurial ecosystem: Toward the theory of new business formation”. The author used the terminology in order to explain how new start-ups are formed. Jude Valdez further noted that potential entrepreneurs only react to the current market challenges in their immediate environment based on their educational background, attitude towards risk, alertness with regard to opportunities within the immediate environment and the financial resources at their disposal among other things.

Valdez (1988) also explained that the existence of new business start-ups results from potential entrepreneurs’ interactions with their immediate environment and their alertness to the current market circumstances that provide opportunity for exploitation. Steven, Les, James and Robert (2003) in their definition of business startups, opined that startups are new small establishment or enterprises that engage in the supplies of goods and services that are profit oriented. It is worth noting that the establishment of business startups, their operations, sustainability and growth by graduates of tertiary institutions in
Nigeria depends to a large extent on graduates’ understanding of the business environment where opportunities are abundant.

Discussion of business environments are classified from internal and external factors that influence the processes of business establishment and operations (Samiksha, 2015; Pac, 2013). These authors all outlined the following as the component of the internal and external environments: Internal Environment: these are factors present within the business such as: objectives of business, policies of business, production capacity, production methods, customers, suppliers, competitors, participation in management and organization structure depending on the nature and size of the business being promoted. The External Environment: the authors further noted include all factors that exist outside the business but influences the business operations such as: public policy, demography, climates, societal culture and marketing intermediaries. Therefore, the success of graduates who want to be self-employed in promoting their own business startups depend to a large extent on their analysis and understanding of the environments which will influence their decision making.

Graduates analysis and understanding of business environments in which they intend to exploit entrepreneurial opportunity and nurture them to successful businesses after graduation, require more than information about entrepreneurship which is normally given in the conventional classroom. It requires the creation of environment that supports both knowledge development and business competency acquisition that are capable of developing the graduates’ competencies in opportunity recognition, risk-taking, resource mobilization and micro business testing. Hull University Business School (HUBS, 2015) suggested five key elements that are likely to enable the design of successful delivery ecosystem for entrepreneurship education initiatives. These are: (1) experiential rather than didactic learning, underpinned by appropriate theoretical knowledge; (2) involvement of both the individual learners and the enterprise through cooperative learning; (3) group learning that involves teams from within businesses, not just individual learners; (4) delivery as part of wider business support programmes, rather than as stand-alone training courses; (5) encouraging some degree of commitment from participants, for example in the form of (partial) charge. The actualization of delivery ecosystem that meets these conditions require the creation of an integrated environment based on partnership among institutions offering entrepreneurship education programmes, private enterprises, relevant government agencies setup to fund innovative and profitable business opportunities and the institutions’ immediate host community.

The needs for such entrepreneurship education integrated environment are informed by the current limitations observable in institutions of higher learning. Some of the limitations visible are as follows:
Current limitations in institution of higher learning

i. Classroom instructions do not support practical entrepreneurship learning activities.

ii. Lack of adequate challenges for entrepreneurial opportunity recognition, evaluation and exploitation.

iii. Inadequate finance for funding students’ entrepreneurial researches.

It is worth noting that most, if not all our local communities provide us with abundant entrepreneurial opportunities that can be used for entrepreneurial development. Some are related to the modernization of our cultural offerings such as: cultural textiles, art works, farm implements, local soaps, perfume, and so on. This requires the development of modern methods of mass production, packaging and marketing which can only be acquired from the school based entrepreneurship education classrooms. If these opportunities are exploited, not only will they reduce our dependency on imported fabrics, farm tools, soap, food and so on, they will also create jobs, preserve our local currency and boost our foreign reserves. Yet most of our graduates do not see these opportunities but prefer to be distributors of foreign made products which are the cultural offerings of those foreign countries.

The inability of our entrepreneurs to seek vast opportunities in modernization of local products or create new ones to replace the old has lower production activities in communities and has also left a lot of community-based natural resources untapped. This has also limited their abilities to come up with business proposals that relate to product or technological tool production, packaging and marketing; rather most of their proposals have been on distribution outlets for foreign products or service provision. This situation can be changed if tertiary institutions and host communities partner in delivery entrepreneurship education that is both classroom and community based. Results of students’ entrepreneurial solutions to community based production challenges can be well packaged and tender to funding institutions such as: Bank of Industry, Microfinance banks, and other financial houses for financing.

In the light of the above, the model for entrepreneurship education ecosystem promoted in this study is one that involves partnership among the institutions, host communities and funding institutions. The aim is to ensure that graduates become entrepreneurial in their thinking while still in school and are able to develop meaningful entrepreneurial solutions for their socio-economic prosperity of their institutions host communities. The institutions in such arrangement will become hubs for innovative solutions that can be commercialized to meet host community needs as well as the need of many other communities if well marketed. This has been partially tested in Federal
College of Education (Tech.), Omoku, Rivers State but it has not been consolidated to lead to new business creation in host communities and environs.

The Institution-Community Entrepreneurship Education Ecosystem Model

This model is designed building upon David A. Kolb (1984) four stages of experiential learning theory – experience – reflection – abstraction - experimentation. It is a model that combines teacher-centred and learner-centred activities in implementing entrepreneurship education curriculum. This has led to six stages of learning activities discussed as follows:

**Instruction** – concrete experience – reflection – abstraction – experimentation – evaluation

The need for this model is informed by the fact that teacher-centred or student-centred learning approach cannot stand alone in any educational programme aimed at developing all the domains of human learning. Supporting this, Batalden and Davidoff (2007) noted that teacher-centred methods as passive methods work in achieving the “what” (the knowledge and understanding) related objectives, while student-centred method that involves learning by doing or through experiences are active learning method and has been shown to be an invaluable tool of teaching the “how” (skills and attitude). Therefore, it is our belief that a model that combines the ‘what’ and ‘how’ methods are more preferable for the development of entrepreneurship education environment where entrepreneurs with the requisite knowledge, skills and attitude for successful community-based entrepreneurship can be developed. It is based on this assumption that the following model was designed.

Explanations of each stage of *ICEEE* Model

i. Instruction: at this stage, the participating institution is required to implement the course content for entrepreneurship education. This can be done through the use of lectures, discussions or tutorials. The essence is to give students information concerning what entrepreneurship is and what it is not? This level is aimed at informing the students on entrepreneurial process and equipping them with tools for entrepreneurial practice. Contents such as opportunity recognition and evaluation, planning, proposal writing, time management, sources of financing entrepreneurial activities, forms of business, risk taking, enterprise creation, resource management, marketing principles and segmentation and social corporate responsibility should be delivered at this stage.
ii. Experience: at this stage, students are expected to explore the community for entrepreneurial opportunities. The entrepreneurship educator turns to facilitator at this stage. The educator is to help students define specific objectives for their learning activities within the host community. Students will be required to come up with community-based opportunities for entrepreneurial solutions.

iii. Reflections: at this stage, students are required to evaluate each of the opportunities they have identified using any evaluation model which they have acquired during the classroom instruction. More preferably, they can use the SWOT analysis tool for evaluating all aspects of the opportunity identified to be exploited. This includes: the input resources needed, the source of finance, public policy relating to the opportunity, the legal requirement (if any), and the cultural perspective, etc.

iv. Abstraction: After the evaluation, students are required to choose one of the community based opportunities for development. This choice would be based on their judgment that it will provide them with ample opportunities for success and draw a proposal for its implementation.

v. Experimentation: at this stage, students are required to test run their opportunity on a micro scale level in order to see whether or not it works. For instance, if the opportunity has to do with new method of production, students will have to apply their new method in producing two to three items of the product for testing. The idea of the number of may depend on the type of product, hence this may be...
relative. They can use any available community based resources to achieve this. The Center for Entrepreneurship Research and Development should secure them access to such resources.

vi. Evaluation: at this stage, students will present their proposals and the sample of their products or services before the entrepreneurial educator and representative(s) of funding institutions such as: Bank of Industry, Microfinance Banks, Bank of Agriculture and any other financial institutions interested in funding students entrepreneurship idea transformation. The proposal will be corrected and direct observations will be made to enable students reinforce their work for exploitation and commercialization.

It will be noted that the above model aims at creating an environment for entrepreneurship education where the student after receiving information in the classroom verifies the applicability of such information in the real world. This is in line with William James’s theory of radical empiricism (1907) which states that nothing should count for knowledge unless it is experienced, and everything that is experienced should count for knowledge. Therefore, it is noted that in the process of subjecting the classroom acquired knowledge to verification in real life experiences, the students develop new understanding of the world, skills, personal traits and attitude. This model develops STARS entrepreneurs, that is, entrepreneurial students with Skills, Trait, and Aspiration for undertaking entrepreneurship ventures that are Relevant and Sustainable in their immediate host communities. This model can be used in diverse fields; the major difference would be in the nature of the students’ entrepreneurial learning activities which are mostly defined by their entrepreneurial interest. Its utilization in tertiary institutions would help produce entrepreneurial graduates who can utilize community resources to produce product(s) and/or service(s) that can be commercialized and used in the immediate communities. This would help significantly in creating new ventures, jobs to reduce the high rate of unemployment among Nigerian graduates and diversify the economy which is much desired today.
Responsibilities of Participating Institution:

The participating institution has the following responsibilities:

i. To provide students with adequate information concerning entrepreneurship education course content such as: opportunity recognition and evaluation knowledge, business planning, product development, forms of business, sources of financing business, marketing principles and segmentation, recording keeping, business location, human resource management and so on.

ii. To define specific objectives for student-centred entrepreneurship activities related to meeting the needs of host communities using local resources.

iii. To guide students in their entrepreneurial researches using entrepreneurship educators as research advisers.

iv. To evaluate students’ entrepreneurial research outcomes and suggest possible areas of improvement.

v. To collaborate with funding institutions to finance students’ innovative solutions on commercial basis.

Responsibility of Host Communities:

i. To provide students with support information.

ii. To provide students with friendly environment for their entrepreneurship research activities.

iii. To provide students with mentors who can readily put mentees through the nitty-gritty of some business technical skills.

Precondition for Successful Utilization of this Model

i. Centre for entrepreneurship research and development must create a network of support institutions such as: financial institutions, venture capitals and angels for students’ entrepreneurship activities.

ii. Students must be willing to carryout practical entrepreneurship learning activities in real-life situation aimed at developing their innovative problem solving skills.

iii. Entrepreneurship educators of participating institutions must be willing to avail themselves as students’ entrepreneurship research advisers.

iv. Centre for entrepreneurship research and development must have a research evaluation panel that are willing to listen to students’ research outcome presentation and suggest area of improvement before the final piece can be test-run.

v. Financial institutions, venture capitalist and angels must be willing to finance meaningful entrepreneurial venture of students at single digit interest rate, if possible not above 5% per annum.
vi. Financial institutions, venture capitalist and angels must be willing to provide students with financial advise where needed.

vii. Communities must be willing to provide a peaceful and friendly environment for students’ entrepreneurship opportunities researches and exploitation.

Conclusion

It is obvious that the environment for developing STARS entrepreneurs cannot be limited to the classroom. This is because the classroom has a lot of limitations in providing entrepreneurial experiences akin to innovation and creativity. If this must happen, an integrated entrepreneurship education environment that is capable of giving the students opportunity to acquire knowledge about and for entrepreneurship is needed. The ICEEE model as partially utilized in F.C.E. (T.), Omoku has proved to be relevant in this regard. Therefore, the diffusion of the ICEEE model for the purpose of creating entrepreneurship education ecosystem cannot be underestimated. This is the case if graduates from tertiary institutions in Nigeria are to be engaged in entrepreneurial ventures that are significant to solving the problems (socio-economic needs) of their immediate environment. However, its design and implementation requires a lot of consultations and collaborations among participating stakeholders. The institutions would have to collaborate with community support systems to actualize the purpose of this design. What needs to be done is put forward as recommendations in this study.

Recommendations

Based on the foregoing discourse and the conclusion drawn, for successful utilization of the ICEEE model in creating entrepreneurship education ecosystem for developing entrepreneurial students, the following recommendations are put forward:

i. The design, arrangement and implementation of this type of ecosystem for entrepreneurship education should be championed by Centre for Entrepreneurship Research and Development in every institution.

ii. Centre for Entrepreneurship Research and Development in each institution must educate their administrators on the need for such arrangement in developing entrepreneurial students.

iii. Centre for Entrepreneurship Research and Development in each institution must embark on sensitization of relevant stakeholders needed for creating the intended entrepreneurship education environment.

iv. Centre for Entrepreneurship Research and Development in each institution should emphasis the need for utility based researches in entrepreneurship education as part of the grading system. This will require each entrepreneurial student to solve
a real life problem that can be commercialized and sustained in their immediate communities.

v. Centre for Entrepreneurship Research and Development in each institution must educate the students on how to conduct entrepreneurial research and pilot test of outcomes.

vi. Centre for Entrepreneurship Research and Development in each institution must source for funding partners who will fund students’ outcome for enterprise creation.
References


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