European Journal of Education Studies
ISSN: 2501 - 1111
ISSN-L: 2501 - 1111
Available on-line at: www.oapub.org/edu

doi: 10.5281/zenodo.3526159 Volume 6 | Issue 7 | 2019

IMPACT OF INSTITUTION-COMMUNITY ENTREPRENEURSHIP EDUCATION ECOSYSTEM (ICEEE) ON BUSINESS EDUCATION GRADUATES' JOBS CREATION IN OMOKU – RIVERS STATE, NIGERIA FROM 2017 TO 2019

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Abstract:
This study examines the impact of institution-community entrepreneurship education ecosystem (ICEEE) on business education graduates' jobs creation skill. A descriptive follow up study of 329 Business education degree graduate students in the year 2017 and 2018, using a questionnaire, mean, cluster mean of the responses, and multiple regression analysis revealed that the students learned product-production using the model as well-established small-scale businesses; although not many jobs were created. The effectiveness of the ICEEE model can be experimented in different fields of study to equip students with requisite knowledge and skills for self-reliance.

Keywords: ICEE, entrepreneurship education, business education, institution-community, experiential learning, job creation

1. Introduction

The prevailing high rate of unemployed graduates from tertiary institutions has been associated with the gap that exists between theoretical knowledge acquisition and skills acquired while in school (Abdulkarim, Agburuga & Ordu-Pac, 2015). However, the most worrisome issue is not the skill gap but how most graduates are taking refuge in filthy activities such as: kidnapping, robbery, contract childbirth, prostitutions, militancy, dubious business, illegal migration to European countries through the desert

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and seas, banditry and terrorism perpetrated in order to make money for sustainability (Magnus & Dahel, 2017). To address the inadequacy of graduates' skills especially as it relates to entrepreneurial skills, many institutions of higher learning are in search of the most appropriate method for entrepreneurship education. This is due to the fact that Entrepreneurship education has been recognized as a tool for successful development human capacity to take up opportunities to provide innovative solution(s) to human problems and make a living out of it (Ordu & Abdulkarim, 2016). In recognition of the roles played by effective entrepreneurship education Gibb (2007), outlined four basic objectives that can be attained through effective entrepreneurship education as:

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

In order to achieve these objectives, MacPherson (2009) noted 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, direct and lasting impact on the learners' entrepreneurial capacity. This suggests that if impact must be felt and seen through the development of new enterprises by graduates, entrepreneurship education must include out of classroom activities especially akin to real life enterprise creation and management.

In the light of the foregoing discourse, Ordu and Abdulkarim (2017) proposed Institution-Community Entrepreneurship Education Ecosystem (ICEEE) model for effective entrepreneurship education. The model is described diagrammatically as follows:

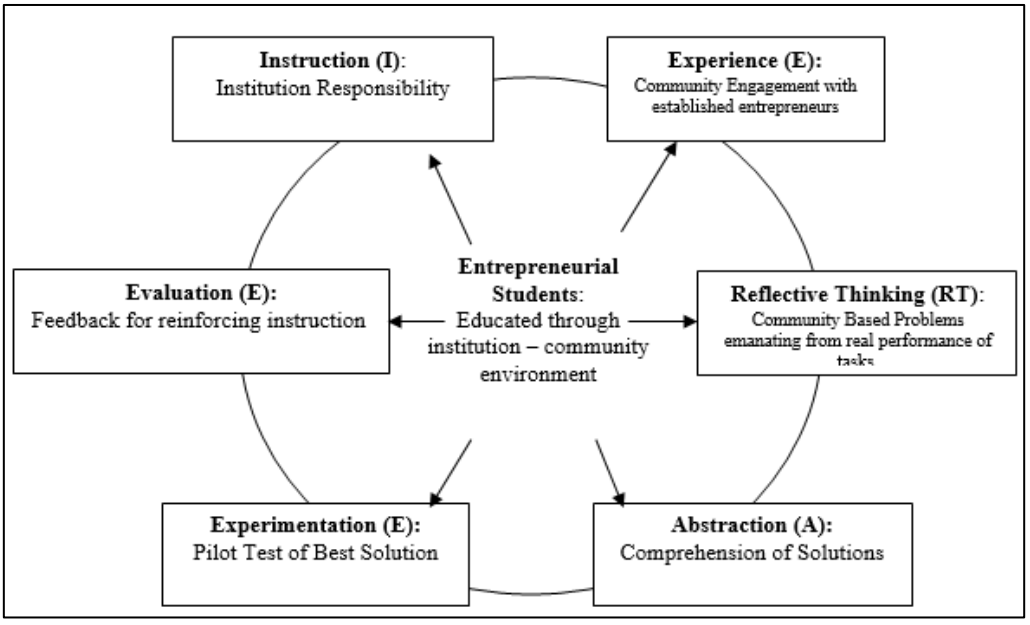

Figure 1: Institution-Community Entrepreneurship Education Ecosystem (ICEEE) Model

Three theories were taken into consideration for the design of this model. These theories are 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. Situated learning theory propounded by Jean Lave (1988) which states that learning should be intentional and situated within authentic activity, context and culture where the previously learnt theories and principles of task performance can be applied. Lave opined that learning is situated, that is, it is developed within the context and culture of where the knowledge or skills would be utilized in the future. David A. Kolb (1984) Experiential Learning Theory (ELT) which states that knowledge is formed as a result of grasping experience and transforming it based on a spiral learning cycle driven by the resolution of the dual dialectics of action/reflection and experience/abstraction. The authors further explained each stage of ICEEE Model as follows:

i. *Instruction*: requires institution to implement the course content for entrepreneurship education using lectures, discussions or tutorial method. 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. Ordu and Abdulkarim suggest that the entrepreneurship content area to be delivered at this stage should cover topics 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.
ii. *Experience*: at this stage, the authors noted that students are expected to explore the community for entrepreneurial opportunities and identify established entrepreneurs to serve as their mentors. To achieve this, they emphasized that the entrepreneurship educator role turns to that of a facilitator at this stage. The educator is to help students define specific objectives for their learning activities within the established entrepreneur in host community where they will learn practically for a period of six weeks and come up with community-based opportunities that require entrepreneurial solutions.
iii. *Reflections*: at this stage, the authors noted that students are required to evaluate each of the opportunities they have identified using any evaluation model which they have learnt 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 brainstorm and choose the best community-based opportunity for development of an innovative and marketable solution at a micro level. This choice would be based on their

judgment that it will provide them with ample opportunities for success, generate income and make them self-reliant.

v. *Experimentation*: at this stage, students are required to test run their innovative and marketable solution at a micro scale level in order to see whether or not it works and be accepted as anticipated. The authors suggested that students' innovative solutions should be those that guarantee the use of any available community-based resources. 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 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 for evaluation. They suggested that correction(s) should be proffered to reinforce the students' understanding of best practices and implementation of corrections should be assessed before the commercialization of the idea through Centre for Entrepreneurship Research and Development.

The authors of this model believed that its utilization in tertiary institutions would help produce entrepreneurial graduates who can utilize community-based resources to produce product(s) that can be commercialized and used in the immediate communities. They also believed that using this model 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. Although, the authors noted in 2016 that the ICEEE model is being utilized in Federal College of Education (Tech.), Omoku, Rivers State, there is no evidence of empirical research outcome of the model. Hence, the need for empirical evidence of the impact of this model based on the postulation of authors cannot be underestimated. It is for this reason that the present study examines the impact of ICEEE model on Business education graduates' Jobs creation in Omoku – Rivers State from 2017 to 2019.

2. Research Questions

To achieve this, the following research questions were formulated:

1) To what extent did students learn product production from community-based entrepreneurs during the utilization of ICEEE model in F.C.E. (T), Omoku?
2) To what extent has the utilization of the ICEEE model led to the establishment of small-scale businesses in the products' areas learnt by business education graduates from community-based entrepreneurs in Omoku?
3) To what extent has the utilization of the ICEEE model led to jobs creation by business education graduates in Omoku?

2.1 Hypotheses

The following null hypotheses would be tested at 0.05 significant level:

Ho1: The utilization of ICEEE model for entrepreneurship education practical has no significant impact on business education graduates' jobs creation in Omoku from 2017 to 2019.

Note: The utilization of ICEEE model is proxy by the learning of product development from community-based entrepreneurs and business education graduates' businesses establishment.

3. Research Methods

3.1 Design of the Study

Descriptive follow-up study research design was adopted for the study. This research design is deemed appropriate for the study because the study establish the association between two variables, that is, ICEEE model utilization and graduates' business establishment. According to Mutch, Johnson and Morlay (1989), a descriptive follow up study provides information that can be used to identify the presence or absence of associations between perinatal events and outcomes.

3.2 Population, Sample and Sampling Technique

The population of the study consisted of 329 Business education degree graduating students made up of 159 and 168 students who took introduction to entrepreneurship VTE 341 in the year 2017 and 2018 respectively in the degree affiliated programme of Federal College of Education (Tech.), Omoku-Rivers State. However, the sample of the study is only made up of 138 Business education graduates consisting of 61 graduates of 2017 and 77 graduates of 2018 respectively who live in Omoku after their school. Purposive sampling technique was used to select the students based on two criteria (i). that the students is a graduate of Business education degree programme from F.C.E. (T.), Omoku affiliation programme with University of Nigeria, Nsukka and (ii). that the student resides in Omoku after graduation.

3.3 Model Specification

A substituted Multiple Linear Regression Model (MLRM) was used as a model for this study. The substituted proposed model is given as:

$$\text{Jobs Creation} = f\ (\text{Practical Product Production Learning, Business Established})$$

Explicitly, the model is written as:

$$\text{JobsC} = \beta o + \beta 1\text{PPPLt} + \beta 2\text{BusEstt} + \text{U i}$$

Where:

JobsC = Jobs creation
PPL = Practical Product Production Learning

BusEst = Business Established after Graduation
U I = Stochastic variable
f = means function. It means jobs creation by graduates of business education is a function of practical product production learning using ICEEE model and the businesses they established graduation.

The proposed model is represented diagrammatical as:

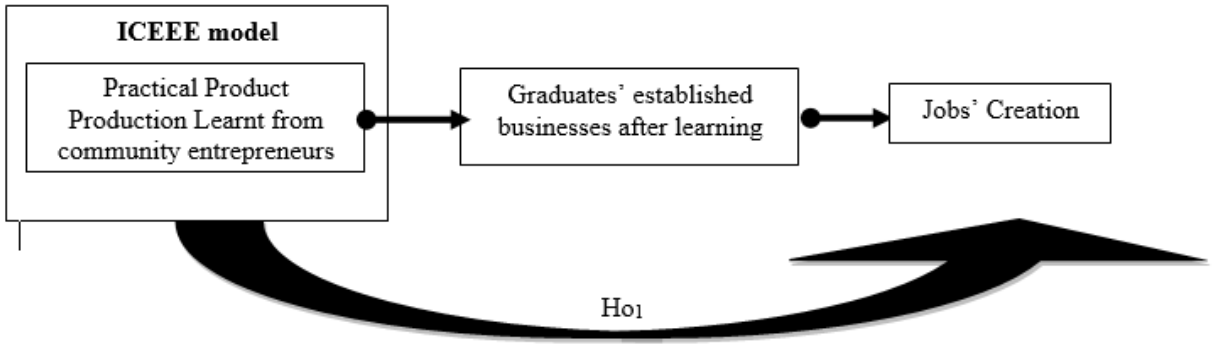

Figure 2: ICEEE model

3.4 Procedures for Data Collection

The data used for this research were collected at three intervals. The first set of data which relates to the extent of product production learnt using ICEEE were collected in year 2017 and 2018 respectively during students' exhibition of the product produced with the collaboration of community-based entrepreneurs. The data relating to graduates' extent of business establishment after graduation was collected one year after students' graduation which is 2018 and 2019, while data relating to jobs' creation were collected in 2018 and 2019 respectively.

3.5 Instrumentation

The researcher's designed instrument called "Business Education Graduates' Business Establishment Questionnaire (BEGBEQ)" was used for primary data collection. The instrument items focused on examining the product-line produced by students during the implementation of the ICEEE model. The questionnaire was made up of 35 items, 15 items to both research question 1 & 2 and five to research question 3. The face validity of the instruments was determined by an expert in Educational Measurement and Evaluation in the Faculty of Education, University of Uyo, Akwa Ibom State. The reliability of internal consistency of the instrument was tested using Cronbach alpha with data obtained from 15 NCE III Business Education students who are not part of the study to obtain a reliability index of 0.99. This shows that the instrument internal consistency is reliable. The data collected were analysed using descriptive statistics of mean and cluster means scores to answer the research questions. The null hypotheses were tested using multiple regression analysis at 0.05 level of significance computed with SPSS. For decision making, the following were used as guide:

a) Cluster mean of 2.5 above will be regarded as Very High Extent (VHE), 2.0 to 2.49 will be regarded as High Extent (HE), and 1.5 to 1.99 will be regarded as Low Extent (LE) and below 1.5 will be regarded as Very Low Extent (VLE).
b) In testing the null hypotheses, the decision rule of computation with SPSS will be used to draw conclusion regarding the results obtained.

4. Results/Discussions

Research Question 1: To what extent did students learnt product production from community-based entrepreneurs during the utilization of ICEEE model in F.C.E. (T), Omoku?

Table 1: Summary of Mean Responses on the Extent to which Business Education Graduates Learned Products Production from Community based Entrepreneurs in Omoku

S/N	Items	2017 (n=61)		2018 (n =77)	
		Total	Mean	Total	Mean
1.	Liquid soap	144	2.36	152	1.97
2.	Traditional black soap	174	2.85	158	2.05
3.	Cosmetics	183	3.00	137	1.78
4.	Beads	193	3.16	177	2.30
5.	Organic coconut oil	238	3.9	81	1.05
6.	Carrot hair oil	178	2.92	153	1.99
7.	Shampoo	192	3.15	181	2.35
8.	Pomade	113	1.85	161	2.09
9.	Pam shoes/slippers	148	2.43	166	2.16
10.	Brocade	80	1.31	177	2.30
11.	Foot mats	122	2.00	181	2.35
12.	Custard	146	2.39	180	2.34
13.	Ice cream	156	2.56	163	1.92
14.	Antiseptic	149	2.44	192	2.49
15.	Bleach	135	2.21	165	2.14
	Cluster mean		2.57		2.09

Source: Field Survey, 2017 and 2018.

The result in table 1 shows that graduates of Business education exposed to practical aspect of entrepreneurship education using the ICEEE model in 2017 are of the opinion that they to a very high extent learnt how to produce liquid soap, traditional black soap, cosmetics, beads, organic coconut oil, carrot hair oil, shampoo, pomade, pan slippers, brocade foot mat, custard, ice cream, antiseptics and bleach with a cluster mean scores of 2.57. However, those who graduated in the year 2018 exposed to practical entrepreneurship using the ICEEE model are of the opinion that they to high extent learnt how to produce liquid soap, traditional black soap, cosmetics, beads, organic coconut oil, carrot hair oil, shampoo, pomade, pan slippers, brocade foot mat, custard, ice cream, antiseptics and bleach with a cluster mean scores of 2.09. Hence, it can be

concluded that the use of ICEEE model for the practical aspects of entrepreneurship education to high extent assists students to learn product production from community-based entrepreneurs.

Research Question 2: To what extent has the utilization of the ICEEE model led to the establishment of small-scale businesses in the products' areas learnt by business education graduates from community-based entrepreneurs in Omoku?

Table 2: Summary of mean responses on the extent of business education graduates establishment of small-scale businesses in products areas learned in Omoku

S/N	Items	2017 (n=61)		2018 (n =77)	
		Total	Mean	Total	Mean
1.	Liquid soap	47	0.77	151	1.96
2.	Traditional black soap	100	1.64	135	1.75
3.	Cosmetics	130	2.13	133	1.73
4.	Beads	101	1.66	67	0.87
5.	Organic coconut oil	130	2.13	81	1.05
6.	Carrot hair oil	74	1.21	86	1.12
7.	Shampoo	72	1.18	99	1.29
8.	Pomade	61	1.00	57	0.74
9.	Pan slippers	67	1.10	70	0.91
10.	Brocade	91	1.49	52	0.68
11.	Foot mats	58	0.95	111	1.44
12.	Custard	81	1.33	137	1.78
13.	Ice cream	56	0.92	112	1.45
14.	Antiseptic	105	1.72	88	1.14
15.	Bleach	96	1.57	86	1.12
	Cluster means		1.39		1.27

Source: Field Survey, 2018 and 2019.

The result in table 2 shows that graduates of Business education are of the opinion that they to a very low extent established small scale businesses in the production of liquid soap, traditional black soap, cosmetics, beads, organic coconut oil, carrot hair oil, shampoo, pomade, pan shoes/sandals, brocade foot mat, custard, ice cream, antiseptics and bleach which they learnt during practical aspect of entrepreneurship education using the ICEEE model in 2017 with a cluster means score of 1.39. In same vein, those who graduated in the year 2018 are also of the opinion that they to a very low extent established small scale businesses in the production of liquid soap, traditional black soap, cosmetics, beads, organic coconut oil, carrot hair oil, shampoo, pomade, pan slippers, brocade foot mat, custard, ice cream, antiseptics and bleach during practical entrepreneurship using the ICEEE model with a cluster means score of 1.27. Hence, it can be concluded that the use of ICEEE model for the practical aspects of

entrepreneurship education to very low extent led to graduate's establishment of small scale businesses in the products' areas they learnt.

Research Question 3: To what extent has the utilization of the ICEEE model led to job creations by business education degree graduates from F.C.E. (T.) in Omoku?

Table 3: Summary of mean responses on the extent of jobs creation by business education degree graduates in Omoku

S/N	Items	2017 (n=61)		2018 (n =77)	
		Total	Mean	Total	Mean
1.	Engage the service of others during the production of the products.	153	2.51	121	1.57
2.	Engage suppliers who supply my raw materials for production.	85	1.39	80	1.04
3.	Engage the service of a sales person to sell my products.	94	1.54	103	1.34
4.	Distribute my products to retailers who sell to final consumers.	64	1.05	109	1.42
5.	Purchase raw materials from local distributors.	79	1.30	104	1.35
	Cluster mean		**1.56**		**1.34**

Source: Field Survey, 2018 and 2019.

The result in table 3 shows that graduates of Business education of year 2017 are of the opinion that to a low extent they created jobs related to production of products, supplies of raw materials, sales, retailing and purchases with cluster means score of 1.56, while those that graduated in year 2018 are of the opinion that to a very low extent they created jobs related to same areas evaluated. Hence, it can be concluded that business education graduates exposed to practical entrepreneurship education using ICEEE model to a very low extent created jobs for others.

5. Test of Hypothesis

Table 4: Summary of Multiple Regression Model on the Impact of ICEEE model on Business Education Graduates' Jobs Creation in Omoku 2017 to 2019

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics			
					R Square Change	F Change	df1df2	Sig. F Change
1	.671[a]	.450	.442	1.31016	.450	55.161	2 135	.000

a. Predictors: (Constant), Learning Products Production, Establishing small scale businesses

Table 4 above shows multiple regression (R) of 0.671, regression square of (R2) of 0.450, adjusted R2 of 0.442, the standard error estimate is 1.31016. The change statistics show R2 0.450 which means that all predictors that actually contributed significantly to the prediction, accounts for 45% of the variance in the ability of graduates to create jobs. Therefore, since the p value of 0.0001 is less than the assumed p value of 0.05, using SPSS, the null hypothesis was rejected, and alternative hypothesis accepted. This means that utilization of ICEEE model in practical entrepreneurship has significant impact on

Business education graduates' jobs creation. However, it must be noted that the impact is below 50% at 45% which is lower than the average.

6. Discussion of Findings

The results related to research question 1 show the use of ICEEE model for the practical aspects of entrepreneurship education to high extent assists students to learn product production from community-based entrepreneurs. This is due to the fact that Business education graduates of 2017 and those of 2018 are of the opinion that they learnt the production of product such as: liquid soap, traditional black soap, cosmetics, beads, organic coconut oil, carrot hair oil, shampoo, pomade, pan shoes/sandals, brocade foot mat, custard, ice cream, antiseptics and bleach to a very high extent and high extent respectively. This finding affirms the opinion of MacPherson (2009) and Ordu (2016) who noted that effective entrepreneurship education cannot be limited to the four-walls of the classroom. It also affirms the belief of Ordu and Abdulkarim (2016) when they noted that the use of ICEEE model would help produce entrepreneurial graduates who can utilize community-based resources to produce product(s) that can be commercialized and used in the immediate communities.

The results related to research question 2 shows that the use of ICEEE model for practical aspects of entrepreneurship education to very low extent led to graduates establishment of small scale businesses in the products' areas they learnt. This is due to the fact that graduates of Business education from year 2017 to 2018 exposed to practical entrepreneurship education using the ICEEE model are of the opinion that they were able to establish businesses in the areas of products learnt to a very low extent. This finding affirms the belief of Ordu and Abdulkarim (2016) that using ICEEE model would help significantly in creating new ventures. Although, it must be noted that the new ventures created were on the low side as indicated by the result of this study.

The results related to research question 3 show that use of ICEEE model for practical aspects of entrepreneurship education to a very low extent led to Business education graduates' jobs creation in Omoku. The reason for this finding is due to the fact that Business education graduates to a low extent established small-scale businesses in the area of products learnt from community based entrepreneurs. This means that the graduates were able to reduce unemployment by creating jobs. This affirms the position of Ordu and Abdulkarim (2016) when they noted that the use of ICEEE model would assist to create jobs and reduce unemployment issue in Nigeria.

The hypothesis relating to the research questions answered shows that ICEEE model significantly impacted on Business education graduates' job creation in Omoku – Rivers State. However, the impact is low and below average. This is due to the fact that the graduates established businesses in line with the practical product production learnt during the utilization of the ICEEE model in Federal College of Education (Tech.), Omoku.

6.1 Educational Implication of the Study

The educational implication of the findings of this study is that Business educators saddled with the responsibility of implementing entrepreneurship education need to adopt and design ICEEE model for the practical aspects of entrepreneurship education. To use this model successful, they need to understand and tailor the preconditions for the successful utilization of this model as outlined by the proponents of the model. Hence, there is need to diffuse the use of this model in various educational setting through a train-the-trainers workshop organized for entrepreneurship educators.

7. Conclusion

Based on the findings of this study, it can be concluded that the ICEEE model has impact on Business education graduates' jobs creation. Hence, if the governments' desire to equip graduates of tertiary institutions, with requisite knowledge and skills for self-employment through entrepreneurship education must be attained, ICEEE model can be an effective tool towards the attainment of such goal. However, considering the fact that not all the participants who learnt practical product production using the ICEEE model established businesses and created jobs despite the high extent of learning, there is need to investigate further factors that hindered their drive to create their own businesses and jobs for others through their establishments.

7.1 Recommendations

Based on the findings, the educational implications and the conclusion drawn, the following recommendations are put forward:

1) Business educators saddled with the responsibility of implementing the practical aspects of entrepreneurship education should adopt ICEEE model and design it to fit their own context.
2) Entrepreneurship educators should study the ICEEE model and experiment its effectiveness in different fields of study in order to adopt, improve and benefits from its advantage in equipping students with requisite knowledge and skills for self-reliance.
3) Established entrepreneurs should be encouraged collaborate with institutions of learning in providing students with the platform for practical entrepreneurship education as promoted by the ICEEE model through tax holders where evidence of collaboration can be provided by assessment of beneficiaries' self-business establishments

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