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## Full Paper

# AN ASSESSMENT OF ENTREPRENEURIAL SELF-EFFICACY OF NIGERIAN TECHNICAL COLLEGE STUDENTS (NTCS)

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**O.O. Oyewole**

*African Institute for Science Policy and Innovation  
Obafemi Awolowo University, Ile-Ife, Nigeria*

**A. I. Oyebola**

*African Institute for Science Policy and Innovation  
Obafemi Awolowo University, Ile-Ife, Nigeria*

**T. O. Olaposi**

*African Institute for Science Policy and Innovation  
Obafemi Awolowo University, Ile-Ife, Nigeria*

**I. O. Abereijo**

*Institute for Entrepreneurship and Development Studies  
Obafemi Awolowo University, Ile-Ife, Nigeria*

### ABSTRACT

In Nigeria, the establishment of technical and vocational colleges are part of government's strategies for reducing unemployment among other goals. However, observations showed that instead of creating new ventures, graduates of Nigerian technical colleges tend to join the labor market waiting and hoping for jobs that are not available. Our literature review showed that this may be due to lack or low level of entrepreneurial self-efficacy (ESE). This study therefore appraised ESE of 450 students of selected 9 technical colleges in South-western Nigeria and assessed the effect of ESE on entrepreneurial intention. We used ESE as a multi-dimensional construct based on the definition of Mueller and Goic (2003). Our findings showed that based on statistical means, the students possessed an average level of ESE but when considered as individuals, many of them possessed high and very high levels of ESE. This is a potential that could be harnessed, in the presence of facilitating environment, for new venture creation and by implication, self-employment. Further, the results of this study suggest that there is no relationship between ESE and entrepreneurial intention (EI). This may be due to the fact that the effect of constraining forces in the business environment is greater and thereby erodes the effect of ESE on EI. Future programmatic interventions should take this insight into cognizance.

**Keywords:** Entrepreneurial, Intention, Nigeria, Self-efficacy, Students, Technical college.

### 1. INTRODUCTION

One of the critical challenges confronting Nigeria is the rising unemployment, especially among her youths. Also, many graduates in Nigeria lack entrepreneurial skills to facilitate self-employment (Oladele *et al.*, 2011). Government support for entrepreneurship and the establishment of technical and vocational colleges are part of government's strategies for economic goals and reduction in unemployment among others (Oyebola *et al.*, 2015). Technical education is defined as all those experiences whereby an individual learns to carry on successfully any useful occupation. These experiences may be organized and institutionalized or unorganized and haphazard (Okoro, 1999).

According to National Policy on Education (NPE, 2004), vocational education is seen as an integral part of general education; a means of preparation for occupational fields and for effective participation in the world of work; an aspect of lifelong learning and preparation for responsible citizenship; an instrument for promoting environmentally sound, sustainable development and a method of alleviating poverty. As at 2016, the total number of technical colleges in Nigeria is 132; out of which 19 are federal government-owned, 110 state-owned and 3 established by private owners (NBTE, 2013). It was gathered from the study that in the past, most graduates of technical and vocational colleges could easily secure salaried employment but currently, this is not so. High rate of youth unemployment in Nigeria requires that youths need to take to self-employment as a career. However, observations showed that this has not been the case especially among students of technical and vocational colleges. Instead of creating new ventures, graduates of Nigerian technical colleges tend to join the labor market waiting and hoping for jobs that are not available.

In the bid to providing an answer to the arising question of what may be the reason for new venture creation aversion among the technical college graduates, our review of literature suggested that the youths may lack entrepreneurial self-efficacy. If this be the case, there will be a need to include activities that would improve entrepreneurial self-efficacy in technical and vocational students in their curricula. Further literature revealed that no study has been done on this subject in technical and vocational colleges in Southwestern Nigeria hence; this study. This study investigated the level of entrepreneurial self-efficacy (ESE) of selected students of technical colleges in Southwestern Nigeria and how ESE influences venture creation intention.



### 1.1. Entrepreneurial Self-Efficacy

Suleiman (2006) defined entrepreneurship as “the willingness and ability of an individual to seek for investment opportunities to establish and run an enterprise successfully. Drucker (1985) viewed an entrepreneur as a person who perceives business opportunities and takes advantage of the scarce resources and use them profitably.

Research suggests that entrepreneurial self-efficacy (ESE) is important to affect entrepreneurship learning result (Chen *et al.*, 1998; Forbes, 2005). It is positively related to students’ belief, ability, and attitude in contexts that can be characterized as complex, dynamic, and inherently uncertain. It is suggested that the concept of entrepreneurial self-efficacy, derived from social learning theory plays an important role in the development of entrepreneurial intentions (Wilson *et al.*, 2007; Dyer *et al.*, 2008).

Entrepreneurial self-efficacy has not been measured among Nigerian Technical College students. Most existing research work on unemployment, nascent entrepreneurship, entrepreneurial self-efficacy and personal entrepreneurial characteristics has been on university and polytechnic graduates; who have either theoretical skills or little (or no) practical skills (Binuyo *et al.*, 2015 and Oyebola *et al.*, 2015). The research question for this study is in two-fold: how do Technical College Students in Nigeria perceive their ability to successfully launch entrepreneurial technical venture and what was the impact of their perception on their intention to create new technical ventures after graduation? The main objective was to appraise the effects of entrepreneurial self-efficacy on technical venture creation intention.

## 2. METHODOLOGY

The study was carried out in three Southwestern states of Nigeria: namely Lagos, Ondo and Ogun. Three technical colleges were randomly selected from each state. A set of structured questionnaire was administered on 50 randomly selected students in nine technical colleges and a total of 450 students participated in this study.

In this study we used ESE as a multi-dimensional construct. The measurement of ESE was based on the definition of Mueller and Goic (2003), who defined entrepreneurial tasks within a venture creation process model. This model was first proposed by Stevenson (Stevenson *et al.*, 1985) and divided entrepreneurial activities into four discrete phases: searching, planning, marshalling and implementing (This is divided into two – people and finance (Mueller and Goic, 2003).

### 2.1. Data Analysis

The retrieved questionnaires were collated, sorted and analyzed using descriptive statistics. The descriptive statistics used

include frequency, percentages and mean. Statistical Package for Social Sciences (SPSS) was used for data analysis. Analysis of variance (ANOVA) was used to test the effect of ESE on venture creation intention. A 5-point Likert scale (1= very little, and 5 = very much) was used.

## 3. RESULTS

### 3.1. Socio - Demographic Characteristics of Respondents.

Demographic characteristics of respondents as presented in Table 1 showed that most of the students were between ages 16 – 20 years (207, 46%). Although, technical colleges are meant for graduates of the Junior Secondary School, many people do not go to technical college until after their graduation from Senior Secondary School or even after graduation from an informal training arrangement from a roadside craft man. Therefore, it is not also surprising that the second largest age group was between the ages of 21 – 25 years (134, 29.8%), the age bracket for youths who have graduated from higher institutions of learning or who are about to graduate.

The finding also showed that 327 (72.7%) of Nigerian technical colleges were male and 123 (23.3%) were female. This result indicates that Nigerian technical colleges were dominated by male. This imbalance was not due to purposive selection, but to the fact that many people regard the practical skills acquired in technical colleges as men’s work. Therefore, most of the students in technical colleges in Nigeria are male. Perhaps, this is similar to the scenarios in some studies that asserted that men are more likely than women to undertake such entrepreneurial venture (Bonnett and Furnham, 1991; Mueller, 2004). The fundamental reason for a gap between men and women, or so it is argued, is that girls socialized differently than boys, leading to differences in career aspirations including the desire to be an entrepreneur (Scherer *et al.*, 1990; Mueller, 2004).

The distribution of the departments from which the respondents were drawn is as follows: electrical installation has the highest number (85, 18.9%), computer craft (64, 14.2%), and Refrigerator and Air conditioning, (61, 13.6%). Business management being a newly introduced department to technical colleges has 45 respondents (10.0%). Our findings showed that the department was introduced to encourage and motivate students to create their own ventures after graduation and be able to manage them properly. The academic level of the respondents varied according to the number of students in each level and attendance of students in the schools. The year one students took the highest population, (259, 57.8%), year two, (114, 25.3%) and year three, (77, 17.1%) students.

Table 1: Respondents’ socio-demographic characteristics

Parameters	Classification (n = 450)	Frequency	(%)
Age	<15	60	(13.3)
	16-20	207	(46.0)
	21-25	134	(29.8)
	25 – 30	39	(8.7)
	> 30	10	(2.2)
Gender	Male	327	(72.7)
	Female	123	(27.3)
Department	Building	43	(9.6)
	Electrical	86	(19.0)
	Computer	64	(14.2)
	RAC	61	(13.6)
	Business Management	44	(9.8)
	Food & Nutrition	40	(8.9)
	Home Science Management	31	(6.9)
	PPF	37	(8.2)

	Plumbing & pipe laying	44	(9.8)
	Year one	259	(57.6)
Academic level	Year two	114	(25.3)
	Year three	77	(17.1)

3.2. Evaluation of Entrepreneurial Self-Efficacy

a. Searching phase

Table 2 presents respondents' perception of their ability to develop a unique idea or identify an entrepreneurial opportunity (21.3%) indicated that they had very little ability to search for new idea for a product or service, while 19.6% had very much. The mean rating (3.02) suggests that the students altogether had average ability to search for new product or service idea. When we added (36.0%) to the 31.8% that indicated that they had moderate ability

we derive an insight that more students (67.8%) believed that they had ability to search for new idea for a product or service. To identify needs for new product or service and 19.1% indicated very much searching skills. On the ability to design new product/service for customer's needs/wants, 15.3% indicated very little ability. Also, for the rated task, 48.9%, very close to a half of the respondents had high and very high ESE. On the whole, a very high percentage (22.9% who indicated moderate level + 48.9% of high and very high = 71.8%) indicated ability to design new product/service for customer's needs/wants.

Table 2: Searching phase

Parameters	VL (%)	L (%)	MD (%)	M (%)	VM (%)	Mean Rating
New idea for a product/service	96(21.3)	49(10.9)	143(31.8)	74(16.4)	88(19.6)	3.02
Identify needs for new product/service	77(17.1)	70(15.6)	118(26.2)	99(22.0)	86(19.1)	3.10
Design new product/service for customer needs/wants	69(15.3)	58(12.9)	103(22.9)	105(23.3)	115(25.6)	3.31

Key: VL = Very little; L = Little; MD = Moderate; M = Much; VM = Very Much.

b. Learning phase

Table 3 presents students' evaluation of their ability to carry out the preliminary tasks that are required to launch a new business venture. On the ability to estimate customers demand for a new product or service, 28.9% indicated moderate ability. The mean rating (3.08) indicates an average level of the learning sub-task evaluated but an addition of the percentages that indicated moderate, much and very much gives a number (66.9%) revealed that a greater percentage of the respondents believed in their ability to estimate customers' demand for a new product or service. On the second sub-task to determine a competitive price for a new product or service, 15.8% of the respondents indicated that they had very little ability, and 18.7% very much. Again, when we added the percentages of those that indicated 'moderate' to 'very much' ability, we got a sum of 71.2% which indicates that a higher percentage of

the respondents believed in their ability to determine a competitive price for a new product or service. On the third sub-task - to estimate the amount of start-up funds and working capital necessary to start their business, the respondents' responses were as follows: 14% very little, and 20.4% very much. A closer look at the results showed that only 26.9% (14% very little + 12.9% little) exhibited low level of the sub-task under evaluation; meaning that the remaining 73.1% believed in their ability to estimate the amount of start-up funds and working capital necessary to start their businesses. On the fourth sub-task - to design an effective marketing advertising campaign for a new product or service, 13.3% indicated that they had very little skills, and 23.3% very much.

Table 3: Learning phase

Parameters	VL (%)	L (%)	MD (%)	M (%)	VM (%)	Mean Rating
Estimate customers demand for a new product or service	76(16.9)	73(16.2)	130(28.9)	82(18.2)	89(19.8)	3.08
Determine a competitive price for a new product or service	71(15.8)	71(15.8)	139(30.9)	85(18.9)	84(18.7)	3.09
Estimate the amount of start-up funds and working capital necessary to start your business	63(14.0)	58(12.9)	140(31.1)	97(21.6)	92(20.4)	3.22
Design an effective marketing advertising campaign for a new product or service	60(13.3)	65(14.4)	122(27.1)	98(21.8)	105(23.3)	3.27

Key: VL = Very little, L = Little, MD = Moderate, M = Much, VM = Very Much.

c. Marshalling phase

Table 4 presents the respondents' perception of their ability to carry out the sub-tasks under the entrepreneurial task called marshalling. On the first sub-task 10.4% indicated very little, and 19.1% very much. The mean rating is 3.29. On the second sub-task -

to make contact with and exchange information with others, 8.2% indicated very little ability, and 23.3% very much. On the third sub-task - to clearly and concisely explain verbally/in writing your business idea in everyday terms, 10.2% indicated very little ability, and 20.4% very much.



The results of the evaluation of the students' self-efficacy on the marshalling task shows that a larger percentage of the technical

college students possessed moderate to very high level of confidence in their ability to perform the task.

Table 4: Marshalling phase

Parameters	VL (%)	L (%)	MD (%)	M (%)	VM (%)	Mean Rating
Get others to identify with and believe in your vision and plans for a new business	47(10.4)	65(14.4)	135(30.0)	117(26.0)	86(19.1)	3.29
Make contact with and exchange information with others	37(8.2)	64(15.2)	153(34.0)	91(20.2)	105(23.3)	3.36
Clearly and concisely explain verbally/in writing your business idea in everyday terms	46(10.2)	64(14.2)	137(30.4)	111(24.7)	92(20.4)	3.31

Key: VL = Very little, L = Little, MD = Moderate, M = Much, VM = Very Much.

#### d. Implementing People phase

Table 5a gives details of the outcome of respondents' perception on the ability to perform the five sub-tasks under the major task implementing – people. People can either be defined in this context as; partners in business, staff and/or customers. For the first sub-task - to supervise employees 14.4% very little skills, and 25.8% very much. The mean rating is 3.30. For the second sub-task - to recruit and hire employees, 11.3 % indicated very little ability, and 18.4% very much. The results, in summary, are similar to the previous ones. For the third sub-task - the mean rating is 3.24 but the larger percentage of the students (73.3%) believed in their

ability to delegate tasks and responsibilities to employees in the business. For the next sub-task - to effectively deal with day-to-day problems and crises, 14% every little ability, and 19.3% very much. On this also, most of the students believed in their ability to effectively deal with day-to-day problems and crises. For the last sub-task under the major task – implementing people, to inspire, encourage and motivate your employees, 10% rated their ability very little, and 23.4% very much.

Table 5a: Implementing – People phase

Parameters	VL (%)	L (%)	MD (%)	M (%)	VM (%)	Mean Rating
Supervise employees	65(14.4)	62(13.8)	113(25.1)	94(20.9)	116(25.8)	3.30
Recruit and hire employees	51(11.3)	60(13.3)	147(32.7)	109(24.2)	83(18.4)	3.25
Delegate tasks and responsibilities to employees in your business	62(13.8)	58(12.9)	123(27.3)	123(27.3)	84(18.7)	3.24
Deal effectively with day-to-day problems and crises	63(14.0)	51(11.3)	160(35.6)	89(19.8)	87(19.3)	3.19
Inspire, encourage and motivate your employees	45(10.0)	74(16.4)	114(25.3)	110(24.4)	107(23.8)	3.36

Key: VL = Very little, L = Little, MD = Moderate, M = Much, VM = Very Much

#### e. Implementing – Finance phase

Table 5b shows the ratings for implementing finance. The results for the two sub-tasks evaluated under implementing-finance are presented in this section. In summary, following previous process, the results indicate that most of the respondents (74.6%) believed in their ability to organize and maintain the financial records of business. For the second sub-task - to read and interpret financial statement, 8.2% of the respondents indicated that they possessed very little ability, and 25.9% have very much. The mean rating (3.51) tends towards high level of self-efficacy and this is supported by the fact that only 21.8% of the respondents

indicated low self-efficacy level for the sub-task. Most of the students (78.4%) believed that they possess the ability to read and interpret financial statement. To summarise the self-evaluation of the respondents for the task implementing – finance, it is clear from the results that most of the students believed in their ability to carry out tasks that are necessary to manage finance in an entrepreneurial venture. This may be due to the introduction of business management courses into the curricular of the technical colleges.

Table 5b: Implementing – Finance phase

Parameters	VL (%)	L (%)	MD (%)	M (%)	VM (%)	Mean Rating
Organize and maintain the financial records of your business	54(12.0)	60(13.3)	87(19.3)	144(32.0)	105(23.3)	3.41
Read and interpret financial statement	37(8.2)	61(13.6)	102(22.7)	134(29.8)	116(25.9)	3.51

Key: VL = Very little, L = Little, MD = Moderate, M = Much, VM = Very Much.

### 3.3. Effect of ESE on EI

ANOVA results (Table 6b) shows the degree of freedom (df) 434, which is calculated as (N- K - 1), where N (450) is the total number of respondents and K (2) represents number of independent variables. The results in the table show that the two independent variables have positive influence on overall performance indicated by F = 2.747 at p = 0.065. F-test (2.747) reveals that within the model; entrepreneurial self-efficacy was not statistically significant with P-value (0.065) at p < 5%. Hence, it may be concluded that ESE has no significant effect on entrepreneurial intention among the technical college students in Southwestern Nigeria.

Table 6a Model summary

Model	Multiple Regression Model Summary <sup>b</sup>			
	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.112a	0.012	0.008	0.822

a. Predictors: (Constant), Entrepreneurial Self-Efficacy, second independent variable

b. Dependable Variable: Attitude Towards Venturing

Table 6b: Analysis of Variance (ANOVA)

Model	Multiple Regression ANOVA <sup>a</sup>				
	Sum of Squares	df	Mean Square	F	Sig
1	3.713	2	1.857	2.747	0.065
Regression					
Residual	293.371	434	.676		
Total	297.085				

a. Predictors: (Constant), Entrepreneurial Self-Efficacy, second independent variable.

b. Dependable Variable: Attitude Towards Venturing

### 4. SUMMARY AND CONCLUSION

This study was motivated by the observation that the graduates of technical colleges in the south-western region of Nigeria were not creating new ventures that could generate employment for them and others, rather, they were looking for salaried employment that were not available. A review of literature suggested that venture creation aversion may be due to lack or low level of entrepreneurial self-efficacy (ESE). Using a sample of 450 students drawn from 9 technical colleges located in three states, we sought to provide answers to two research questions: i. How do students of technical colleges perceive their ability to start and manage a new venture successfully and, ii. What relationship exists between entrepreneurial self-efficacy and entrepreneurial intention?

Our findings showed that though some few students exhibited low ESE but most of the students believed in their ability to start and manage a new venture successfully. Following

submissions from the literature, it is expected that with the level of ESE reported, the students should be creating new ventures after graduation but the actual situation being contrary to this makes an inquisitive mind wonder. We went further to explore the nature of relationship between ESE and entrepreneurial intention. The results revealed positive but insignificant relationship. From the findings, the students with moderate to high ESE may be motivated to want to choose entrepreneurship as a career path but the force of constraining factors in the Nigerian business environment may erode the intention.

This study concludes that the problem of new venture creation aversion among technical college graduates in South-western Nigeria may not be due to low entrepreneurial self-efficacy. Other factors such as lack of necessary infrastructure or lack of start-up capital may be a greater force than entrepreneurial self-efficacy. We therefore recommend that any government, policy-maker or non-government organization that aims to encourage venture creation among Nigerian youths should take the insight gleaned from this study into cognizance.

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