

## **Technological Creativity and Entrepreneurial Intentions of Undergraduate Students in Ogun State, Nigeria.**

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### **Abstract**

*The rate of unemployment in developing nations is increasing by the day, despite various national leaders attempt to devise ways of providing jobs for the blooming youth population. Technological creativity that will foster entrepreneurial intentions amongst youth is also on the decline as most young graduates tend to become employees rather than become employers of labour. Hence this study investigated the effect of technological creativity on the entrepreneurial intentions of undergraduate students in Ogun State. A validated survey instrument was tested on 319 undergraduate students and through a comparative study between computer and business administration students, it was found that technological creativity has a positive and significant effect on the entrepreneurial intentions of computer science students ( $\beta = 0.343$ ,  $t = 5.877$ ,  $R^2 = 0.181$ ,  $p < 0.05$ ) and business administration students ( $\beta = 0.588$ ,  $t = 12.668$ ,  $R^2 = 0.627$ ,  $p < 0.05$ ) of the selected Universities in Ogun State, Nigeria. The study therefore recommends that in universities, technological creativity should be imbibed with any business-oriented practical learning through avenues and activities that stimulate creativity through divergent and convergent thinking.*

**Keywords:** *Entrepreneurial Intentions, Technological Creativity, Undergraduate Students, Universities.*

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### **I. INTRODUCTION**

In Nigeria, the unemployment rate is on the increase. In the third quarter of 2018, it stood at 23.1% (Trading economics, 2019a), with the level of youth unemployment standing at 36.50% (Trading economics, 2019b). Ndofirepi (2016) observed that many youths are involved in entrepreneurial activities, but these are necessity-driven and informal sector-based income-generating activities which are duplicative and devoid of technological creativity and innovation. These are assets needed in a global village for sustaining 21st century business activities. There have been rapid, regular and disruptive changes in 21st-century entrepreneurial environment and this created numerous market challenges for both nascent and established businesses (Chuang & Huang 2016). This has led to new markets, new products and new business environment. Due to the current lack of entrepreneurs who possess skills like technological creativity, many firms are underperforming (Lin & Nabergoj, 2014) because in order to contribute to economic growth; entrepreneurs are currently adapting creativity and innovation in their business operations (Dessyana & Riyanti, 2017).

New businesses created by university students and graduates are a powerful tool to bringing new knowledge and strategies to the market which turn spurs productivity growth and job creation (Ferrante, Federici, & Parisi, 2016). Okorie, Okorie, Kwa, Olusunle, Akinyanmi, and Momoh (2014) observed that innovative technologies open up new avenues for business growth, which enhance the economy and help in the global competitiveness of national economies. Thus, Haruna (2013) observed that the various problems in the business industry can only be solved by the creativity of both the entrepreneur and the researchers and the unavoidable support and cooperation of the government. In Nigeria, unfortunately, the innovative culture and environment that drive innovation appears to be missing. As a result of the ripple down effect, many innovative ideas die at the point of conception for lack of investment. This is quite unfortunate as numerous societal problems in Nigerian can be tackled by the innovativeness of local entrepreneurs. Furthermore, several issues such as poor infrastructure, poor skills base, limited access to finance, limited access to market, low absorption of research and technology, and inadequate power supply (Dutse, Ningi, & Abubakar, 2013) are also inhibiting the progress of entrepreneurship in the country. Future entrepreneurs need to be well equipped to survive in the challenging Nigerian business environment. It is therefore important to harness the creative potential of students at University level to address the why very few students start a business immediately after graduation. It is against this back drop that this study sought to examine how technological creativity affects the entrepreneurial intentions of undergraduate students in Ogun State, Nigeria. The paper is structured in the following order

introduction, literature review, methodology, results presentation and discussion of findings, conclusions and recommendations.

## **II. LITERATURE REVIEW**

Differentscholarly works were reviewed conceptually and empirically to gather more information and knowledge on the constructs used in this research work.

### **2.1 Technological Creativity**

Ndofirepi, Rambe and Dzansi (2018) defined creativity as a human and social attribute that makes individuals and society adjust to the mutable environment, reformulate life-challenges, and take risks to try new approaches to problems. Furthermore, the author postulated that artistic creativity, entrepreneurial creativity, scientific creativity, cultural creativity and technological creativity are the various types of creativity. Creativity can also be defined as the production of novel and useful ideas by an individual or small group of individuals working together (Amabile & Pratt, 2016) and technology which relates to any techniques, skills, methods and processes that are used to solve real-life problems (Pacey, 2014). It has also been observed that the concept of creativity is usually explained from three different perspectives, which are personality traits (a human quality associated with convergent and divergent thinking), processes involved (the stages that one undergoes to produce a novelty) and the product/output of creativity (Ndofirepi, 2016). Similarly, in earlier studies such as that carried out by Redelinguys and Bahill (2006), psychologists consider the creativity concept from two perspectives; either as an achievement or as a human trait. This is why personality and output scales are usually used to measure and individual's creativity. This preceding definition is referred to as definition by inclination or capability factors (Kwon & Ryu, 2010)

Berglund and Wennberg (2006) proposed that process approaches to creativity looks into the behavioural aspects which includes creative thinking and techniques, product approaches looks at creative products – assuming that the products can give insights on creative quality and quantity while press approaches looks into factors outside the individuals that affects creativity such as working environment and social relationships. Furthermore, Amabile (2012) considered creativity as the production of a novel and appropriate response, product, or solution to an open-ended task.

Discussions about technological creativity have just gained prominence in recent years. The first serious discussions and analysis of the concept of technological creativity – which is the focus of this study- in the entrepreneurship context was done by Rambe, Ndofirepi, and Dzansi (2015). Since then, technological creativity has been gaining more prominence in literature on education, even though its interpretation and application is still in the developmental stages (Ndofirepi *et al.*, 2018; Rosly, Junid, Lajin & Rahim, 2015). Technological creativity can be defined as the way in which individuals apply science to accomplish tasks in a faster and better ways and as a result improve their lives (Yeh & Wu, 2006). Technological creativity is taken to mean the ability to come up with new ideas, skills, methods, techniques and processes that solve practical problems (Ndofirepi *et al.*, 2018). This definition confines the technological creativity concept to the scientific field and lays emphasis on innovation aspect. This is vital in the business environment and in knowledge-based economies where the extent of innovation within individual economies affects the level of development and advancement. Creativity is gaining increasing critical importance to business success in order to achieve the competitive edge in the aggressive business world (Rosly *et al.*, 2015).

According to Wyse and Spendlove (2007), “technological creativity is a person's capacity to produce new or original ideas, insights, restructurings, inventions or artistic objects, which are accepted by experts as being of scientific, aesthetic, social or technological value” (p. 185). This definition is more robust and accommodating and covers diverse fields. This supports the motion that technological creativity applies to various contexts including engineering, business, economic, management, manufacturing, arts and science. Lin, Tsai, Chien, and Chang (2013) defined technological creativity as the means by which individuals design and make products and, as a result, improve the overall quality of peoples' lives. This definition emphasizes on the innovation aspect of technological creativity, linking technological creativity with the concept, design, development and commercialization of new products and also the problem solving nature of technological creativity. The key difference between technological creativity and general creativity is in technological creativity's practicality (Cropley & Cropley, 2010).

It is important to note that creativity involves generating novel ideas (Ahlin, Drnovšek, & Hisrich, 2014) but innovation involves commercializing the new ideas (Ndofirepi *et al.*, 2018). As a result, technological creativity can be looked as bringing up novel ideas while innovation operationalizes them. Schumpeter (1934) further asserts that through creative destruction, entrepreneurs discard irrelevant products and services and replaced them with new and market-related ones. Thus, entrepreneurs need skills like creativity, innovativeness and the ability to recognize opportunities. It is therefore essential for entrepreneurs to use divergent and

convergent thinking to generate ideas, products, and services that match existing market requirements or create new market opportunities (Gundry, Ofstein, & Kickul, 2014).

## **2.2 Entrepreneurial Intention**

Several authors have argued that being an entrepreneur is a conscious decision (Ajzen, 2015; Fayolle & Liñán, 2014). In other words, entrepreneurship which is viewed as an intentional activity predates entrepreneurship involvement. Also, Heinrichs and Walter (2013) had earlier described entrepreneurial activity as a culmination of human action. Thus, it is essential to appreciate the processes that lead to actual entrepreneurial activity if one is to really understand why people engage in entrepreneurship behaviour. Such behavior is more important in undergraduate students as they are considered to be entrepreneurs of tomorrow.

Defining entrepreneurship intention is difficult due to the numerous facets of entrepreneurship intention. There are various examples, such as corporate entrepreneurship intention, social entrepreneurship intention, academic entrepreneurship intention, and family entrepreneurship intention (Fayolle & Liñán, 2014). The concept of entrepreneurship intention has been used interchangeably with other related but different aspects such as entrepreneurship attitude, orientation, inclination and readiness and proclivity (Thompson, 2009). Intention can be defined as a cognitive state reflecting a propensity to perform a certain action (Uddin & Bose, 2012). It can also be defined as a self-prediction of future behaviour and represents one's readiness to act and results from prior conscious mental processes (Ajzen, 2015). Therefore, an intention can be described as an antecedent of behaviour.

Thompson (2009) defined entrepreneurial intention as the self-acknowledged conviction by a person that they intend to set up a new business venture and consciously work towards doing so in the future. Entrepreneurial intention is a state of mind, which guides and gives direction to individuals towards formulation of new business concepts (Amanamah, Owusu, & Acheampong, 2018). It is the conscious state of mind that precedes action and directs attention toward a goal such as starting a new business (Moriano, 2012). Whether an individual engages in entrepreneurship out of prior preparation or impulse determines the nature of the venture they will create, with those who do prior planning creating more sustainable ventures (Singer, Amoros, & Arreola, 2015). The intention to have an entrepreneurial career before actually starting the business is gaining for focus in the exploration of entrepreneurship due to its relevance as a starting point of new venture creation. As such, the personal motivation and commitment of a nascent entrepreneur has a significant impact on shaping the entrepreneurial intention.

## **2.3 Technological Creativity and Entrepreneurial Intention**

This study is anchored on the theory of planned behaviour which is propounded by Ajzen (1991) and supported by Krueger and Carsrud (1993), Fayolle and Gailly (2013), Fayolle and Liñán (2013) and Malebana (2014). This theory is used because it explains human attitude towards a behaviour. The framework was also adopted because it is the most appropriate theoretical basis for the study given that it influences the business formation process of entrepreneurship. It posits that individual behaviour is driven by behavioural intentions, which are a function of three determinants: an individual's attitude toward behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991). Krueger and Carsrud (1993) and Fayolle and Liñán (2013) emphasized that the theory of planned behaviour can be used to analyze the level of students' entrepreneurial intentions. Therefore, this theory is pertinent and applicable to this research that seeks to investigate the effect of technological creativity and entrepreneurial intentions of undergraduate students in Ogun State, Nigeria.

Few researchers have carried out studies on how entrepreneurial intentions are affected by technological creativity, especially amongst university students. Earlier studies focused more on creativity such as Berglund and Wennberg (2006), who studied creativity among entrepreneurship students, comparing engineering and business education students. The results showed that both groups had high creative potential, but that engineering students channelled this into practical and incremental efforts whereas the business students were more speculative and had a clearer market focus. This is quite interesting as it shows how creativity manifests itself in different ways in different students. Furthermore, Rahim, Ismail, Thurasamy, and Ismail (2018) found that the tendency in which a person is involved in entrepreneurship is higher depending on how creative the individual is. Similarly, a study on undergraduate students of campuses of Behavioural Sciences and Engineering at University of Teheran, showed that students who have more creative ideas generated and higher quality of ideas produced increased their entrepreneurial intention (Molaei, Zali, Mobaraki, & Farsi, 2014).

The study by Biraglia and Kadile (2016) showed that the relationship between creativity and entrepreneurial intentions is mediated by entrepreneurial self-efficacy, confirming that individuals also need to feel self-efficacious enough to pursue entrepreneurial career. Similarly, Rosly *et al.* (2015) supported the work of Berglund (2008) that suggested that creativity has an influence on one's intention to be an entrepreneur or in this case a technopreneur. The research also suggested that the impact may be small but since creativity is gaining increasing importance in ensuring business success; creativity should now be considered as an indicator

for entrepreneurship intention. Furthermore, Ndofirepi, *et al.* (2018) found that the influence of technological creativity on entrepreneurial intentions was fully mediated by self-efficacy. This emphasizes the importance of technological creativity as a psychological aspects in the evaluation of ways that can be used to effectively foster the entrepreneurial intentions of students undergoing entrepreneurship.

Conversely, findings by Zampetakis, Gotsi and Andriopoulos (2011) from a survey of undergraduate business school students at a British university based in England indicated that individual creativity does not only predict entrepreneurial intention, but also mediates creativity supported by family and university. This showed that the more creative young people consider themselves to be, the higher are their entrepreneurial intentions. Students' creativity also fully mediates the effect of family support for creativity on their entrepreneurial intention. Support for creativity in the university was also found to have no effect on their creativity or on their entrepreneurial intention and that entrepreneurship course attendance moderates the effect of individual creativity on entrepreneurial intention.

### III. METHODOLOGY

Cross sectional survey research design was used for the study. The study was targeted at a population of undergraduate students in three universities in Ogun State. The Universities in Ogun State were chosen due to the large concentration of Universities in the State and to mitigate resource and time constraints inherent in the research. Thus, for the purpose of succinctness, three universities were selected to represent all universities in Ogun State. A private university (Babcock University), a federal university (Federal University of Agriculture, Abeokuta (FUNAAB)) and a state university (Tai-Solarin University of Education (TASUED)). Raosoft sample size calculator was used to calculate the sample size of 319. The proportionate stratified sampling technique was used in the selection of the sample size as shown in the Table 1:

**Table 1: Population and Sample Size selection**

University	Population of final year students in Computer Science	Population of final year students in Business Administration	Total Students	Percentage
<b>Babcock University</b>	181	70	251	21
<b>FUNAAB</b>	94	150	244	21
<b>TASUED</b>	325	355	680	58
<b>TOTAL</b>	<b>600</b>	<b>575</b>	<b>1,175</b>	<b>100</b>

**Source: Researcher's computation, 2019**

A standardized research instrument for this study was adapted (Ndofirepi *et al.*, 2018). A pilot study was carried out at Covenant University, Ota, Ogun State, after which the reliability and validity was confirmed. The study was carried out to confirm the proposition that was based on the following specified model:

$$Y = f(X)$$

$$EI = f(TC) \dots \dots \dots \text{functional\_relationship}$$

$$Y_i = \alpha_0 + \beta_1 X_i + \ell_i \dots \dots \dots \text{model\_equation}$$

$$EI_i = \alpha_0 + \beta_1 TC_i + \ell_i \dots \dots \dots \text{model\_equation}$$

Where:

X (TC) = Technological Creativity

Y (EI) = Entrepreneurial Intention

The *a priori* expectation of the study is that technological creativity should show a positive significant effect on entrepreneurial intentions.

### IV. RESULT PRESENTATION, ANALYSIS AND DISCUSSION

Three hundred and nineteen 319 copies of questionnaire were distributed to the respondents, out of which 293 copies of the returned questionnaire were satisfactorily completed which was used for the analysis. This represents a response rate of 91.8%, which was considered adequate in this study.

**Table 2: Questionnaire distribution among selected universities**

University	Total Valid responses	Computer Science	Business Administration
<b>Babcock University</b>	65	39	26
<b>FUNAAB</b>	58	30	28
<b>TASUED</b>	170	89	81
<b>Total</b>	<b>293</b>	<b>158</b>	<b>135</b>

**Source: Field Survey, 2019**

**Discussion**

The descriptive statistics on the responses to question items under technological creativity for computer science students are as presented in Table 3.

**Table 3: Descriptive Statistics on Technological Creativity for Computer Science students**

Question Items on Technological Creativity	Mean	Standard Deviation
Consider more than one solution to address a problem	5.24	0.78
Try out new ideas	5.21	0.91
Master some creativity techniques like brainstorming	5.03	0.92
Make connections between trends in the technological environment and opportunities for improvement in my life	4.99	0.98
Modify and adapt daily routines in line with new technology	4.89	1.08
Find new technology-driven ideas to make life easier	5.08	0.94
<b>GRAND</b>	<b>5.07</b>	<b>0.93</b>

**Source: Field Survey, 2019**

Table 3 shows the descriptive statistics on the questionnaire responses to items under technological creativity. Out of a total of 293 valid respondents, a mean of 5.07 revealed that respondents’ ability to consider more than one solution to address a problem is high with a standard deviation of 0.93. Furthermore, respondents’ ability to try out new ideas is high with a mean of 5.21 and a standard deviation of 0.91. Also, respondents’ mastery of some creativity techniques like brainstorming is high with a mean of 5.03 and a standard deviation of 0.92. A mean of 4.99 was observed as regards the respondents’ ability make connections between trends in the technological environment and opportunities for improvement in their life, with standard deviation of 0.98. The respondents converged at a mean of 4.89 and implying that on an average, respondents’ ability to modify and adapt daily routines in line with new technology as high, with a standard deviation of 1.08. Finally, the respondents’ ability to find new technology-driven ideas to make life easier converged at a mean of 5.08 with a standard deviation of 0.94.

In conclusion, a grand mean of 5.07 shows that respondents’ level of technological creativity is high with a standard deviation of 0.93 showing a convergence towards the mean. The descriptive statistics on the responses to question items under technological creativity for business administration students are as presented in Table 4.

**Table 4: Descriptive Statistics on Technological Creativity of Business Administration students.**

Question Items on Technological Creativity	Mean	Standard Deviation
Consider more than one solution to address a problem	4.89	1.11
Try out new ideas	4.94	1.04
Master some creativity techniques like brainstorming	4.81	0.88
Make connections between trends in the technological environment and opportunities for improvement in my life	4.74	1.01
Modify and adapt daily routines in line with new technology	4.74	0.89
Find new technology-driven ideas to make life easier	4.79	1.05
<b>GRAND</b>	<b>4.81</b>	<b>1.00</b>

**Source: Field Survey, 2019**

Table 4 shows the descriptive statistics on the questionnaire responses of business administration students to items under technological creativity. Out of a total of 293 valid respondents, a mean of 4.89 revealed that respondents’ ability to consider more than one solution to address a problem is high with a standard deviation of 1.11. Furthermore, respondents’ ability to try out new ideas is high with mean of 4.94 and a standard deviation of 1.04. Also, respondents’ mastery of some creativity techniques like brainstorming is high with a mean of 4.81, with a standard deviation of 0.88. A mean of 4.74 was observed as regards the respondents’ ability make connections between trends in the technological environment and opportunities for improvement in their life, with standard deviation of 1.01. The respondents converged at a mean of 4.74 and implying that on an average, respondents’ ability to modify and adapt daily routines in line with new technology high, with a standard deviation of 0.89. Finally, the respondents’ ability to find new technology-driven ideas to make life easier converged at a mean of 4.79 with a standard deviation of 1.05.

In all, a grand mean of 4.81 shows that respondents' level of technological creativity is high with a standard deviation of 1.00. The descriptive statistics on the responses to question items under entrepreneurial intentions for computer science students are as presented in Table 5.

**Table 5: Descriptive Statistics for Entrepreneurial Intentions of Computer Science students**

Entrepreneurial Intentions	Mean	Standard Deviation
<b>Total Responses = 158</b>		
Access to capital for startup	4.58	1.38
Business registration is easy	3.26	1.51
Possess good social networks that can be utilized when I decide to be an entrepreneur.	4.90	1.01
Family members will support entrepreneurship career	4.66	1.13
Innovation motivates me	5.02	1.13
University atmosphere inspires business creativity	3.96	1.39
My family encourages me to set up my own business.	4.34	1.22
I am aware of a startup hub/support.	4.60	1.34
Course content stimulate you to become an entrepreneur	4.53	1.30
Possess confidence to start my own business.	4.79	1.06
I like to try new things	5.14	0.91
I will create my own business once an opportunity is detected	5.15	0.86
Confident of business abilities and skills.	4.94	1.05
Possess mental maturity to be an entrepreneur.	4.72	1.17
I will choose a career as an entrepreneur.	4.42	1.36
I prefer to be an entrepreneur rather than to be an employee in a company	4.96	1.30
I want the freedom to express myself in my own business.	5.28	0.87
I am working towards owing my own business	4.96	1.15
<b>Grand Mean</b>	<b>4.68</b>	<b>1.175</b>

**Source: Field Study, 2019**

Table 5 presents results of descriptive statistics of entrepreneurial intentions of computer science students. The results of the descriptive analysis revealed that On average, the respondents indicated that they have access to capital for start-up is high (mean = 4.58, SD = 1.38). The results of the descriptive analysis revealed that on average, the respondents indicated that they partially disagree that business registration is easy (mean = 3.26, SD = 1.51). Also, the respondents indicated that they agree that they possess good social networks that can be utilized when they decide to be an entrepreneur (mean = 4.90, SD = 1.01). The results show that on average, the respondents indicated that they agree that family members will support entrepreneurship career (mean = 4.66, SD = 1.13). The results also show that on average, the respondents indicated that they agree that innovations motivates them (mean = 5.02, SD = 1.13).

The results also show that on average, the respondents indicated that they partially agree that university atmosphere inspires business creativity (mean = 3.96, SD = 1.39). The results of the descriptive analysis also show that on average, the respondents indicated that they partially agree that their family encourages them to set up their own business (mean = 4.34, SD = 1.22). The results of the descriptive analysis also show that average, the respondents indicated that they agree that are aware of a startup hub/support (mean = 4.60, SD = 1.34).

The results of the descriptive analysis also show that on average, the respondents agree that course content stimulates them to become an entrepreneur (mean = 4.53, SD = 1.30). The results also show that on average, the respondents indicated that they agree that they possess confidence to start their own business (mean = 4.76, SD = 1.06). Furthermore, on average, the respondents indicated that they agree that they like to try new things (mean = 5.14, SD = 0.91). The results also show on average, the respondents agree that they will create their own business once an opportunity is detected (mean = 5.15, SD = 0.86). The results show on average, the

respondents agree that they are confident of their business abilities and skills (mean = 4.94, SD = 1.05). The results also show that on average, the respondents agree that they possess mental maturity to be an entrepreneur (mean = 4.72, SD = 1.17). The results also show that on average, the respondents partially agree that they will choose a career as an entrepreneur (mean = 4.42, SD = 1.36).

The results also show that on average, the respondents agree that they prefer to be an entrepreneur rather than to be an employee in a company (mean = 4.96, SD = 1.30). The results also show that on average, the respondents agree that they want the freedom to express themselves in their own business. (mean = 5.28, SD = 0.87). The results also show that on average, the respondents agree that they are working towards owning their own business (mean = 4.96, SD = 1.15). The results show that generally, entrepreneurial intentions on average are high amongst computer science respondents (mean = 4.68) and the standard deviation of 1.175 shows the respondents level of convergence around the mean.

**Table 6 Descriptive Statistics for Entrepreneurial Intentions of Business Administration Students**

Entrepreneurial Intentions	Mean	Standard Deviation
<b>Total Responses = 135</b>		
Access to capital for startup	4.98	0.940
Business registration is easy	4.41	0.933
Possess good social networks that can be utilized when I decide to be an entrepreneur.	5.04	0.888
Family members will support entrepreneurship career	4.63	0.952
Innovation motivates me	4.76	1.167
University atmosphere inspires business creativity	4.63	0.952
My family encourages me to set up my own business.	4.73	1.169
I am aware of a startup hub/support.	4.62	1.165
Course content stimulate you to become an entrepreneur	4.73	0.876
Possess confidence to start my own business.	4.84	1.167
I like to try new things	5.07	0.986
I will create my own business once an opportunity is detected	5.02	0.934
Confident of business abilities and skills.	4.74	0.992
Possess mental maturity to be an entrepreneur.	4.76	1.037
I will choose a career as an entrepreneur.	4.33	1.528
I prefer to be an entrepreneur rather than to be an employee in a company	4.56	1.563
I want the freedom to express myself in my own business.	4.67	1.348
I am working towards owning my own business	4.79	1.305
<b>Grand Mean</b>	<b>4.741</b>	<b>1.106</b>

**Source: Field Study, 2019**

Table 6 presents results of descriptive statistics of entrepreneurial intentions of business administration students. The results of the descriptive analysis revealed that on average, the respondents indicated that they have access to capital for start-up is high (Mean = 4.98, SD = 0.94). Also, results revealed that on average, the respondents indicated that they partially disagree that business registration is easy (mean = 4.41, SD = 0.933).

Also, on average, the respondents indicated that they agree that they possess good social networks that can be utilized when they decide to be an entrepreneur (Mean = 5.04, SD = 0.888). The results show that on average, the respondents indicated that they agree that family members will support entrepreneurship career (Mean = 4.63, SD = 0.952). The results also show that on average, the respondents indicated that they agree that innovation motivates them (mean = 4.76, SD = 1.167). The results also show on average, the respondents indicated that they partially agree that university atmosphere inspires business creativity (Mean = 4.63, SD =

0.952). The results of the descriptive analysis also show that on average, the respondents indicated that they agree that their family encourages them to set up their own business (Mean = 4.73, SD = 1.169). Also, results show that on average, the respondents indicated that they agree that are aware of a startup hub/support (mean = 4.62, SD = 1.165). Also, on average, the respondents agree that course content stimulates them to become an entrepreneur (mean = 4.73, SD = 0.876). The results also show that on average, the respondents indicated that they agree that they possess confidence to start their own business (mean = 4.84, SD = 1.167). The results of the descriptive analysis also show that on average, the respondents indicated that they agree that they like to try new things (mean = 5.07, SD = 0.986).

The results that on average, the respondents agree that they will create their own business once an opportunity is detected (Mean = 5.02, SD = 0.934). On average, the respondents also agree that they are confident of their business abilities and skills (Mean = 4.74, SD = 0.992). Furthermore, on average, the respondents agree that they possess mental maturity to be an entrepreneur (Mean = 4.76, SD = 1.037). The results also show that on average, the respondents partially agree that they will choose a career as an entrepreneur (mean = 4.33, SD = 1.528). The results also that on average, the respondents agree that they prefer to be an entrepreneur rather than to be an employee in a company (Mean = 4.56, SD = 1.563). On average, the respondents also agree that they want the freedom to express themselves in their own business. (Mean = 4.67, SD = 1.348). The results also show that on average, the respondents agree that they are working towards owning their own business (mean = 4.79, SD = 1.305).

Generally, the results show that on average, the entrepreneurial intentions are high amongst business administration respondents (mean = 4.741) and the standard deviation of 1.106 shows the respondents level of convergence around the mean.

Combining and comparing tables 3 and 5 and tables 4 and 6, technological creativity and entrepreneurial intentions have the similar pattern of increase for both computer science students and business administration students. Therefore, looking at the pattern of increase, there is a likelihood that technological creativity will increase entrepreneurial intentions of students for both departments.

**Statement of Hypothesis**

**H<sub>0</sub>:** Technological creativity has no significant effect on entrepreneurial intentions of computer science and business administration undergraduate students in Ogun State, Nigeria.

Simple linear regression analysis was performed to test the hypothesis with entrepreneurial intentions as the dependent variable, and with technological creativity as the independent variable. Data from two hundred and ninety three (293) respondents were analyzed, 135 were business administration students while 158 were computer science students. The results of the regression analysis are shown in Tables 7 and 8.

**Table 7: Regression Analysis of Technological creativity on Entrepreneurial Intentions of Computer science students in Ogun State, Nigeria**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	SD. Error	Beta		
N	(Constant)	2.954	0.298		9.904	.000
158	Technological Creativity	0.343	0.058	.426	5.877	.000
Dependent Variable: Entrepreneurial Intentions						
R = 0.426, R <sup>2</sup> = 0.181, F <sub>(1, 156)</sub> = 34.537, p = 0.000 < 0.05						

**Source: Field Survey, 2019**

The result presented in table 7 shows that technological creativity has a positive significant effect on entrepreneurial intentions of computer science undergraduate students in selected universities in Ogun state, Nigeria ( $\beta = 0.343$ ,  $t = 5.877$ ,  $p < 0.05$ ). The R value for the regression model is 0.426 which shows that technological creativity has a positive significant relationship with entrepreneurial intentions. Furthermore, the R square value for the regression model is 0.181 meaning 18.1% variations of entrepreneurial intentions was caused by technological creativity. This finding is supported by a positive and significant unstandardized  $\beta$  coefficient in Table 7 ( $\beta = 0.588$ ,  $t = 12.668$ ,  $p < 0.05$ ). The result of the standard error of the estimate is 0.488. The model is adequate as the  $S.E \leq 2.5$  and that the variability in the prediction is 0.488. The regression model used to explain the variation in competitive advantage due to the effect of technological creativity can be stated as follows:

$$EI = 2.954 + 0.343TC \dots\dots\dots (i)$$

Where:

TC = Technological Creativity; EI = Entrepreneurial Intention

The regression equation above shows that the parameter estimate of technological creativity are complied with *a priori* expectation which explains technological creativity had a positive effect on entrepreneurial intentions of computer science undergraduate students in selected universities in Ogun State. The constant was 2.954, which implies that if technological creativity is at zero; the value of entrepreneurial intentions would still be positive which implies that students that do not possess technological creativity can still have a level of entrepreneurial intention. The coefficient of technological creativity was 0.343 indicates that one unit change in technological creativity results in 0.343 units increase in entrepreneurial intention of the computer science undergraduate students in selected universities in Ogun state. This implies that an increase in technological creativity will subsequently increase entrepreneurial intentions of computer science undergraduate students in selected universities in Ogun state. Table 7 also shows the  $F_{(1, 156)}$  statistics value is 34.537 at  $p < 0.05$  which suggests that technological creativity significantly explained variations in entrepreneurial intentions for the computer science undergraduate students which further proves the fitness of the model.

**Table 8: Regression Analysis of Technological creativity on entrepreneurial intentions of Business Administration students in Ogun State, Nigeria**

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	SD. Error	Beta		
N 135	(Constant)	1.069	0.249		4.289	.0001
	Technological Creativity	0.764	0.051	0.792	14.961	.0001
Dependent Variable: Entrepreneurial Intentions						
R = 0.792, R <sup>2</sup> = 0.627, F <sub>(1, 133)</sub> = 223.817, p < 0.05						

**Source: Field Survey, 2019**

## V. DISCUSSION

The result presented in table 8 shows that technological creativity has a positive significant effect on entrepreneurial intentions of business administration undergraduate students in selected universities in Ogun state Nigeria ( $\beta = 0.588$ ,  $t = 12.668$ ,  $p < 0.05$ ). The correlation coefficient R value for the regression model is 0.792 which shows that technological creativity has a strong positive significant relationship with entrepreneurial intentions. Furthermore, R square value for the regression model is 0.627 meaning 62.7% variations of entrepreneurial intentions was caused by technological creativity. The result of the standard error of the estimate is 0.486 representing the variability in the prediction. The regression model used to explain the variation in competitive advantage due to the effect of technological creativity can be stated as follows:

$$EI = 1.069 + 0.764TC \dots\dots\dots (ii)$$

Where: TC = Technological Creativity ; EI = Entrepreneurial Intention

The regression equation above shows that the parameter estimate of technological creativity complies with the *a priori* expectation which explains technological creativity had a positive effect on entrepreneurial intentions of computer science and business administration undergraduate students in selected universities in Ogun State. The constant was 1.069, which implies that if technological creativity is at zero; the value of entrepreneurial intentions would still be positive which further implies that students that do not possess technopreneurial self-efficacy can still have a level of entrepreneurial intention. The coefficient of technological creativity was 0.764 which indicate that one unit change in technological creativity results in 0.764 units increase in entrepreneurial intentions. This implies that an increase in technological creativity will subsequently increase entrepreneurial intentions of business administration undergraduate students in selected universities in Ogun State. Table 4.8 also shows the  $F_{(1, 133)} = 223.817$ ,  $p < 0.05$  which suggests that technopreneurial self-efficacy significantly explained variations in entrepreneurial intentions for the computer science undergraduate students which further proves the fitness of the model.

Based on the results, the null hypothesis one ( $H_0$ ) which states that technological creativity has no significant effect on the entrepreneurial intentions of computer science and business administration undergraduate students in selected universities in Ogun State was rejected.

The study investigated the effect of technological creativity on entrepreneurial intentions. The results of the regression analysis for the effect of technological creativity on entrepreneurial intentions of computer science and business administration undergraduate students in selected universities in Ogun state Nigeria provided an overall significant view. The combination of the dependent and independent variables was

statistically significant in showing that technological creativity affects entrepreneurial intentions of both computer science and business administration students.

The result of this study are consistent empirically with the study on creativity among entrepreneurship students by Berglund and Wennberg (2006), Biraglia and Kadile (2016), Ndofirepi, *et al.* (2018), Rahim *et al.* (2018), Rosly *et al.* (2015), Zampetakis *et al.* (2011) on the subject matter.

## VI. CONCLUSION

The study suggests that undergraduate students have strong entrepreneurial intentions. Furthermore, findings of this study further revealed that technological creativity has a significant effect on entrepreneurial intentions of undergraduate students in selected universities in Ogun State, Nigeria. Therefore, to enhance the entrepreneurship intentions and unleash full entrepreneurial potential of students, universities should seek to nurture the technological creativity of students by inculcating it in entrepreneurship education. Individuals and teams with the capabilities to see and connect market opportunities, which are also quick to come up with new solutions in the form of products, processes, and ideas that create value which satisfies market needs are in high demand. The researcher concurs with Ndofirepi *et al.* (2016) view that creativity, particularly technological creativity, should be intertwined with any business-oriented instructional programme so as to enhance the potency and relevancy of its outcomes to the contemporary economic environment. Practical projects such as business simulation games, business proposal presentations, generation of viable business ideas, business plan competitions will also help stimulate creativity. This will encourage and enhance divergent and convergent thinking.

Further research should also conduct a longitudinal study to determine if the entrepreneurial intentions of the students under study actually achieve their entrepreneurial goals and pursuits. Also, it would be interesting to explore further entrepreneurial intentions of students in private and public universities. This is because the ways the universities operate vary and the business environment, delivery of entrepreneurship education and the opportunities available to the students to start-up businesses on campuses vary in different institutions.

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