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Attitude and Entrepreneurial Intent: Mediating Role of Entrepreneurship Education and Pedagogies

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Abstract:
The purpose of this paper is to explore the mediating role of certain selected teaching pedagogies of entrepreneurship education in the relationship between entrepreneurial attitude and intention. This study employs a causal design to examine the relationship between entrepreneurial attitude, entrepreneurial intention, and entrepreneurship education using a cross-sectional questionnaire- based survey. A self-developed questionnaire and proportionate stratified random sampling technique were employed to collects data from a sample size of 359 final-year undergraduate students, selected from six universities in six out of nineteen states of Northern Nigeria. The study finds that entrepreneurship education significantly mediates the relationship between entrepreneurial attitude and intention. Further, the study showed that the mediation effect of entrepreneurship education is driven by teaching pedagogies like Live Projects and Meeting with Entrepreneurs but not by Business Plan pedagogy in the Northern Nigerian context. This study tests and provides new findings in the area of "methods of delivery" of entrepreneurship education by focusing on the three different pedagogies. No other study has taken these factors in the context of Northern Nigeria. Hence, this study has attempted to answer new research questions and has opened new areas of study in the field of entrepreneurship education.

Keywords: **Attitude, Business Plan, Education, Entrepreneurship, Intention, Pedagogy**

1. Introduction

Entrepreneurship is a widely studied phenomenon due to its significant impact on economic growth and employment (Naude, 2013; Audretsch, Grilo, & Thurik, 2011). Scholars have provided various definitions of entrepreneurship, emphasizing aspects such as innovation, risk-taking, and the conversion of ideas into profitable activities (Schumpeter, 1936; Drucker, 1985; Gartner, 1990; Shane & Venkataraman, 2000; Kirzner, 1985; Holt, 2003). While consensus on a universally accepted definition remains elusive (Katz & Green, 2009), it is widely recognized that entrepreneurship plays a vital role in job creation and economic development (Barot, 2015; Hessels, 2019; Chen et al., 2018). Entrepreneurs possess characteristics such as a need for achievement, perceived locus of control, intuitive thinking, and risk-taking propensity (Nakhaie, 2011), allowing them to identify, collect, and utilize resources to generate profits and contribute to economic growth (Prag & Versloot, 2007). Central to entrepreneurial behavior is entrepreneurial intention, which drives individuals to shape their ideas and venture into business (Fayolle & DeGeorge, 2006; Autio et al., 2001; Kolvereid, 1996). Intention serves as a precursor to entrepreneurial behavior and the establishment of new enterprises (Liñan, 2004; Prodan & Drnovsek, 2010; Souitaris et al., 2007).

The most used models for predicting entrepreneurial intention are Ajzen's (1991) Theory of Planned Behaviour (TPB) and Shapero's (1981) Model of Entrepreneurial Event (MEE). While both models have demonstrated strong statistical capabilities in predicting entrepreneurial intention (Krueger et al., 2000), the TPB has been more widely used and successful in entrepreneurship intention studies across different contexts (Kolvereid, 1996; Gelderen et al., 2008). Ajzen's TPB posits that the intention to engage in planned behavior, such as entrepreneurship, is determined by three antecedents: personal attitude towards the behavior, subjective norm, and perceived behavioral control. According to Ajzen (1991), "the more favorable the attitude and subjective norm, and the greater the perceived control, the stronger should be the person's intention to perform the behavior in question." Attitude towards entrepreneurship reflects an individual's positive or negative willingness towards entrepreneurship, which is shaped by one's beliefs about the outcomes of entrepreneurial behavior. A positive evaluation of entrepreneurial outcomes leads to a stronger intention towards entrepreneurship, and vice versa. Ajzen's TPB suggests that intention is a direct precursor to behavior, particularly in cases where the behavior is uncommon and involves a planning process, as is typical of entrepreneurship (MacMillan & Katz, 1992). While attitude, subjective norm, and perceived behavioral control are conceptually independent predictors of intention (Ajzen, 2020), numerous studies have examined these variables together or separately based on specific contexts (Zhang, P., Wang, D. & Owen, 2015; Shinnar et al., 2012; Siu & Lo, 2013), with attitude often identified as the strongest determinant of intention (Ajzen & Fishbein, 1980).

In the present study, we focus on one predictor, attitude, and examine the mediating role of entrepreneurship education (EE) in developing the intention of university undergraduate students in Northern Nigeria. The literature has established that EE provides motivation, skills, knowledge, self-employment capacity, and a positive attitude towards entrepreneurship (Lee et al., 2005; Owoseni & Akambi, 2010; Fayolle & Gailly, 2008). EE is defined as a collection of formalized teachings that inform, train, and educate individuals interested in business creation or small business development (Bechard & Toulouse, 1998). Fayolle and Gailly (2004) define entrepreneurship education as any educational or pedagogical program associated with the teaching of entrepreneurial skills and qualities. EE aims to equip individuals with the knowledge and skills required to navigate and exploit uncertain environments and convert them into commercial opportunities. In broader terms, EE encompasses education about entrepreneurship and education for entrepreneurship (Jamieson, 1994). The former provides knowledge about the fundamentals of starting and running a business, while the latter focuses on practical skills for supporting new venture creation. While the latter aspect is more crucial for successful entrepreneurship careers, understanding the former aspect is highly important, especially for undergraduate students. However, shifting mindsets towards entrepreneurship itself presents a challenge. In this regard, providing entrepreneurship education can be a strategy to increase the level of entrepreneurship (European Commission, 2006). Entrepreneurship education was introduced as a course in the mid-1940s (Vesper & Gartner, 1997) and gained popularity as a new field in business schools during the 1970s, experiencing rapid growth in the 1990s (Kuratko, 2005). Since then, entrepreneurship-related training programs have been implemented, particularly in the USA (Katz, 2003), as well as in various European countries (Vesper & Gartner, 1999). Initially offered to students in business and management schools, entrepreneurship education has expanded to non-business areas of

study, such as engineering and arts, from the mid-90s to the early 2000s (Streeter & Jacquette, 2004). Recognizing its importance in addressing the increasing rates of social problems among undergraduates in Nigeria, such as unemployment and poverty, the Federal Government of Nigeria integrated entrepreneurship education into the university curriculum in 2006 (Edokpolor, 2020). Studies by Okikiola (2017) and Mahmoud and Muharam (2014) have identified youth unemployment and poverty as major socio-economic problems in the African subregion. Abubaker, Ibrahim, and Yazeed (2018) have also highlighted these findings and recommended entrepreneurship education as an important factor in stimulating entrepreneurial growth.

The primary goal of entrepreneurship education, whether it offers theoretical knowledge or practical entrepreneurial skills, is to equip participants with entrepreneurial abilities and instill entrepreneurial values in them so that they develop a positive attitude towards entrepreneurship, which may lead to an intention to start a business in the future. This study empirically examines the interplay among entrepreneurship education, teaching pedagogies, attitude, and intention towards founding a business.

2. Literature Review

In the introductory part of the paper, it has been discussed that entrepreneurial attitude refers to the favourably or unfavourably disposition toward entrepreneurship, formed through one's conviction about the possible prospects of entrepreneurship along with the evaluations of these prospects. On one side, entrepreneurial intention is the state of mind that directs one's attention towards the creation of new business ventures, on another side entrepreneurship education is a program designed to equip participants with entrepreneurship abilities, values and mindset using various teaching pedagogies.

Theoretical and empirical literature indicates a strong relationship between these concepts (entrepreneurial attitude, entrepreneurial intention, and entrepreneurial education). For instance, Maresch et al., (2016) opined that a student's beliefs about the possible outcomes of entrepreneurship and the negative or positive evaluation of the outcomes of entrepreneurship (attitude) may be influenced by entrepreneurship education. They pointed out that entrepreneurship education would typically frame entrepreneurial behaviour in the minds of students in a positive light considering its advantages in comparison to other career choices and strengthen students' positive outlook about entrepreneurship.

Similarly, Bandura (1977) has observed that learning elements, which provide individuals with the opportunity to acquire knowledge through hands-on experience are the most effective foundation that builds beliefs in oneself. The experiences they got through active classes are seen as a true indication that they can effectively perform a given behaviour. Hence, entrepreneurship education course(s), delivered through experiential teaching pedagogy is expected to have a positive impact on students' attitude and perception of a high degree of control over the behaviour. Also, Laurillard (2002) states that an empirically based education, that, again and again, facilitates interaction in the teaching and learning process with emphasis on a particular area makes student-oriented learning possible, which in turn influences attitudes. Likewise, Volery and Mueller (2006) observed that exposing students to entrepreneurship training through case competition or doing practical market research or other entrepreneurship-related activities, which allows students to be actively involved in the acts, would eventually mould their attitude towards the act. They added that actively engaging a student in entrepreneurship, whether it is a simulated or actual environment, gives them the feeling that an entrepreneurial career can be exciting. Other empirical studies in Malaysian context (Ramayah & Harun, 2005) and South African context (Malebana, 2012) both showed that entrepreneurship education impacts students' attitude concerning entrepreneurship.

The extant empirical literature on the relationship between entrepreneurship education and entrepreneurial intentions is replete with contradictory results. While some studies showed that entrepreneurship education significantly impacts the intention of entrepreneurial engagement in a positive way, others revealed that the program negatively affects entrepreneurial intention. Yet, some studies revealed that the entrepreneurship education to intention relationship is mediated by entrepreneurial attitude. For instance, a meta-analysis of more than seventy studies showed a significant but small influence of entrepreneurship education on the intention for entrepreneurship among youth in Belgium (Bae, Qian, Miao, & Fiet, 2014). Similarly, studies in the African context also indicate that entrepreneurship training has a positive impact on students' plan of entrepreneurship career (Malebana, 2012; Oguntimehin & Olaniran, 2017). However, earlier studies showed that while the entrepreneurial abilities of participants were enhanced through

entrepreneurship training, its overall effect on students' intention for start-ups is negative (Oosterbeek, van Praag, & Ijsselstein, 2010; VonGraevenitz Harho & Weber, 2010; Fayolle, Benoit, & Narjisse, 2006). Similarly, Zapeda's (2015) study did not find any evidence to show that entrepreneurship education has significant effects on entrepreneurial intentions. Other studies such as Ayuo, Auka, and Kibas (2017) showed that the effect of entrepreneurship education on entrepreneurial intention is mediated by attitudes. Generally, studies that examined entrepreneurship education to intention relationship showed that the two are significantly correlated. Although, the effects reported were in both positive and negative directions depending on the context of the study.

Likewise, studies in different contexts seem to agree that positive and significant relationships exist between entrepreneurial attitude and entrepreneurial intention. For instance, Fitzsimmons and Douglas (2005) conducted a cross-cultural study of Indian, Chinese, Thai, and Australian students to understand the correlation between entrepreneurial attitudes and the entrepreneurship intent. The study showed that a student's entrepreneurial attitude is a significant predictor of intention for entrepreneurial engagement. In another study, Widayat and Ni'matuzahroh (2017) presented an empirical model that shows that intention towards entrepreneurship is significantly predicted by students' entrepreneurial attitude. The same study also showed that attitude mediates the effects of entrepreneurship education. A study of high school students in the Philippines (Abun et al., 2018) and Ethiopian students of engineering (Ayalew & Zeleke, 2018) both showed that students' attitude towards entrepreneurship significantly impacts their plans regarding entrepreneurship. Empirical study in Nigeria also linked attitude towards entrepreneurship to the intention to engage in entrepreneurial activities. For instance, Gujrati, Amdan, Esha, and Tyagi (2019a) in their study of entrepreneurship intention of Nigerian undergraduates showed that attitude is in fact the strongest predictor of entrepreneurship intention among Ajzen's (1991) three antecedents of intention. However, an earlier study indicated that the impact of both attitude and intention towards entrepreneurship is moderated by entrepreneurship taught courses (Bignotti & Roux, 2016).

In the past, entrepreneurship related courses were taught using teaching pedagogies such as lecture method, business plan, case study, etc., which typically concentrated on teaching about entrepreneurship rather than for entrepreneurship (Heinonen & Poikkijoki, 2006). However, with the introduction of more experiential /or active learning teaching pedagogies such as the use of incubation facilities, live project, industry tour, creative challenge among others (Jones, 2007), scholars believe that effective combination of both- the traditional and experiential pedagogies would have greater impact on participants' ability to deal with the complexities and uncertainties associated with contemporary business and lead them to develop intention towards business founding (Fatoki & Oni, 2014; Arasti et al., 2012; Mwasalwiba, 2010; Jones, 2007).

However, this was not the case in the context of Nigeria, as a study of the effectiveness of entrepreneurship teaching pedagogies found that the use of business plan, live project, and meeting with entrepreneurs in teaching entrepreneurship had not significantly impacted on intention towards entrepreneurial behavior (Gujrati & Amdan, 2019). Hence, in the present paper, the researchers have isolated these three teaching pedagogies for further investigation using a parallel mediation approach.

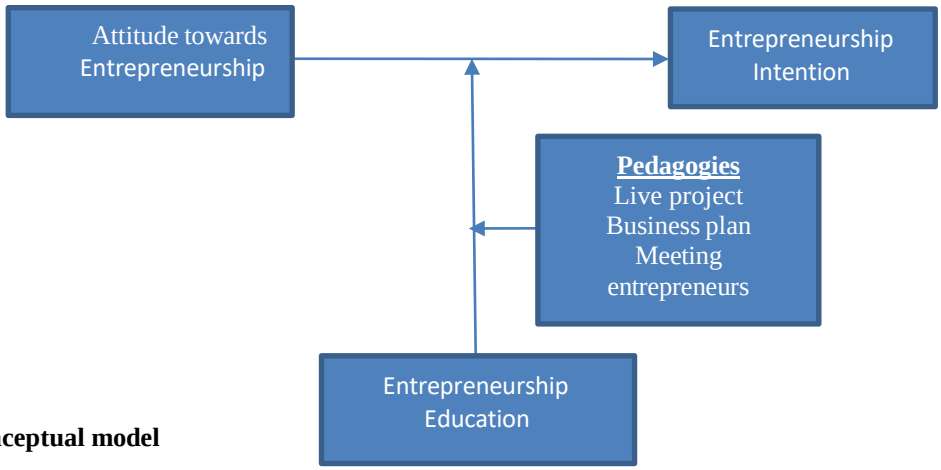

Fig 1. The conceptual model

2.1 Research Gap

A comprehensive review of existing literature reveals the presence of significant relationships among entrepreneurial attitude, entrepreneurial intention, and entrepreneurship education. However, there is a notable research gap concerning the potential mediation of entrepreneurship education in the relationship between students' entrepreneurial attitude and their intent towards starting a business. This study aims to address this gap by exploring the mediating effects of entrepreneurship education provided in the classroom on the relationship between students' attitude towards entrepreneurship and their career intentions. Furthermore, the study goes beyond by investigating the mediating role of three innovative teaching pedagogies, previously identified as having no direct effect in a prior study (Gujrati Lawan, & Tyagi, 2019), in the relationship between attitude and entrepreneurial intention.

2.2 Research Question (RQ)

1 Does entrepreneurship education have any mediation role between attitude towards entrepreneurship and entrepreneurial intention?

2 Is the mediating role of entrepreneurship education driven by selected teaching pedagogies?

2.3 Research Objectives

1 To assess the mediatory effect of entrepreneurship education in the relationship between entrepreneurship attitude and the intention towards entrepreneurship.

2 To examine the role of selected teaching pedagogies on the mediating effect of entrepreneurship education in the relationship between entrepreneurship attitude and the intention towards entrepreneurship.

3.0 Research Design

This study employs a causal design to examine the relationship between entrepreneurial attitude, entrepreneurial intention, and entrepreneurship education using a cross-sectional questionnaire-based survey. The dependent variable (DV) is entrepreneurial intention (EI), while the independent variable (IV) is entrepreneurial attitude (ETA). Entrepreneurship education (EE) serves as the main mediating variable (MV). The study builds upon previous research (Gujrati, Varuna, & Lawan, 2019b) and includes three variants of the teaching pedagogy variable: Live projects, Meeting with entrepreneurs, and Business plans. These three variables also act as mediating variables.

To collect data, a self-developed questionnaire was used, following the recommendations of Krosnick and Presser (2010) for optimal questionnaire design. The construction of the questionnaire aligns with Fishbein and Ajzen's (2010) description of questionnaire construction for the constructs of the Theory of Planned Behavior (TPB). The entrepreneurial attitude scale consists of 16 items, the entrepreneurial intention scale comprises 4 items, and the entrepreneurship education scale comprises 17 items. Consistent with previous studies (Linan & Chen, 2009; Moriano et al., 2011; Ngugi et al., 2012; Usaci, 2015), all items were measured using a 5-point Likert Scale.

The sampling unit for the study consists of final-year undergraduate students from six universities out of the 18 universities in Northern Nigeria. A multi-stage stratified random sampling technique was employed to select the participating universities, ensuring representation from the three geo-political regions of Northern Nigeria. The absolute sample size of 359 was determined based on Saunders et al.'s (2009) table for sample sizes, which recommends a minimum absolute sample size of 357 for sampling frames ranging from 5000 to 10000.

For data analysis, the PROCESS Macro/Bootstrapping method by Hayes (2013) was used to estimate the indirect effect of entrepreneurial attitude on entrepreneurial intention through entrepreneurship education (simple mediation) using IBM SPSS Version® 22. Parallel mediation analysis was conducted to explore the role of teaching methods adopted in the entrepreneurship classroom in the mediating effect of entrepreneurship education. Following Hayes' Model of simple mediation (2013), the study proposes that attitude towards entrepreneurship influences entrepreneurship education (path a), which subsequently affects entrepreneurial intention (path b). The product of path 'a' and path 'b' (ab) represents the indirect effect of attitude on intention through entrepreneurship education. The direct effect, denoted as c! (c prime), reflects the effect of entrepreneurial attitude on entrepreneurial intention while controlling for the effect of entrepreneurship education. The total effect 'c' combines the indirect and direct effects of entrepreneurial attitude on intention (c = c! + ab). Figure 1 illustrates this model.

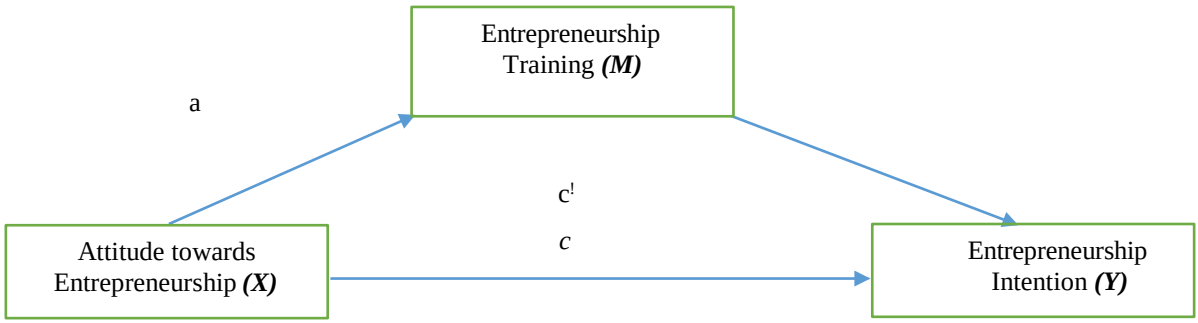

Figure 2. *Simple mediation model shows the effect of entrepreneurship education in the relationship between attitude towards entrepreneurship and entrepreneurship intention*

In figure 3, parallel mediation has been used to check the role of three different teaching methods through which entrepreneurship education is delivered in the classrooms namely- Live projects, Meeting with entrepreneurs, and the Business plan in between the entrepreneurial attitude and entrepreneurship intention relationship (Gujrati, Varuna, & Lawan, 2019b). Thus, three different significant or non-indirect effects are expected; one through each of the teaching pedagogies.

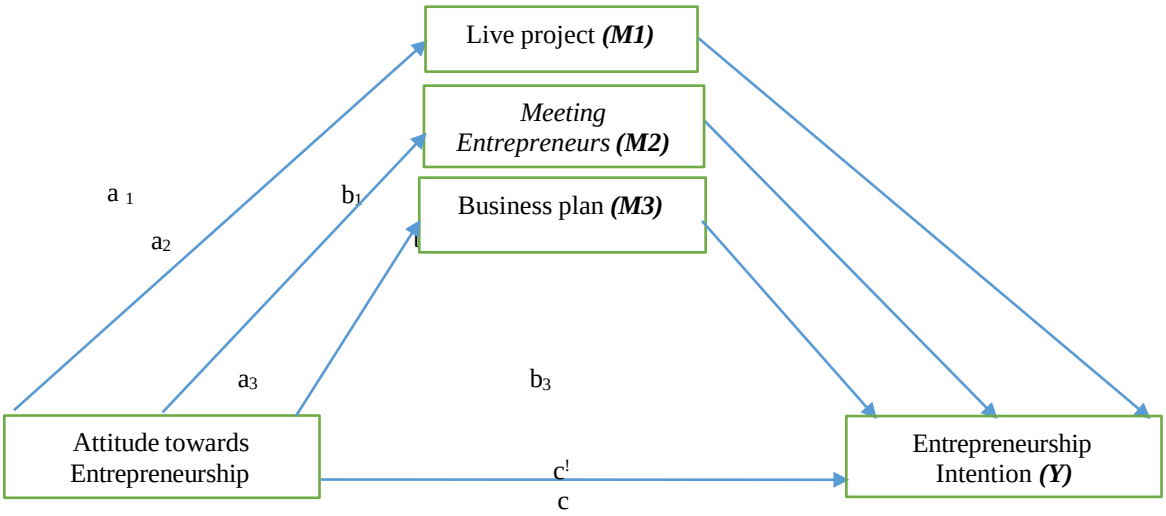

Figure 3. *Parallel mediation of the role of teaching pedagogies in the relationship between entrepreneurial attitude and intention for entrepreneurship career.*

4.0 Analysis and Results

4.1 Checking Linearity, Homoscedasticity, and Normality

Prior to running a mediation analysis, Hayes (2013) pointed out the need to check for Linearity, Homoscedasticity, and Normality of the variables to minimize errors. Kane and Ashbaugh (2017) recommended the use of Standardized Residuals as a means for checking the linearity of the independent variable (entrepreneurial attitude) and Mediating variable (entrepreneurship training) influencing the dependent variable (entrepreneurial intention) in mediation analysis. Path a, (i.e. ATE ON ET), path b (ET ON EI), and indirect effect are expected to be linear.

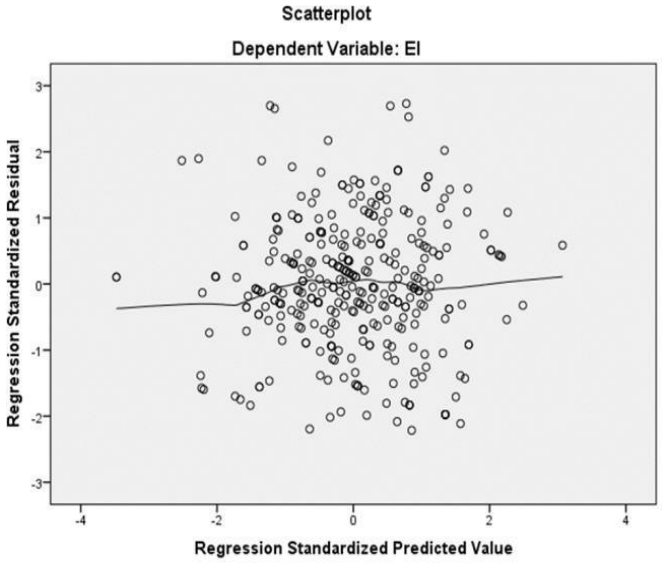

Figure 5. *Testing for Normality using Regression Standardized Residuals: Effect ATE & EE on EI. of Relationship Between ATE, ET, and EI.*

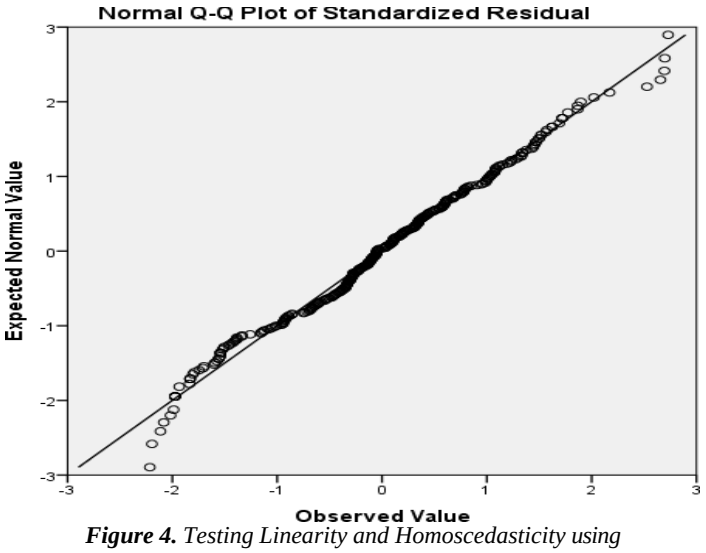

Figure 4. *Testing Linearity and Homoscedasticity using Regression Standardized and Predicted Values*

Figure 4 indicates that the loess curve hubs close to zero along the X-axis. This suggests based on Jacoby (2000) that the linearity assumption is tenable. Similarly, the assumption for homoscedasticity appears to have held since the data spread consistently in a rectangular manner along the Y-axis (Kane & Ashbaugh, 2017), as shown in figure 4. From the same regression residuals in figure 4, a **Q- Q plot** is created to check for the normality of the data. The data appear to rap properly along the diagonal, which indicates that the assumption for normal distribution is tenable. Further, an exploratory analysis was conducted to clean the data for multicollinearity issues. Reliability was also checked using the Cronbach Alpha coefficients, which range from 0.654 to 0. 769 (Moss et al., 1998; Hair et al., 2006)

4.2 Simple Mediation Analysis (Objective 1)

Table 1: Effect of ATE on EE M (*Path a)*

Model: Path *a*						
	Coeff	**Se**	**T**	**P**	**LLCI**	**ULCI**
Constant	2.289	0.181	12.615	0.0000	1.930	2.643
ATE	0.356 (0.367)	0.050	7.244	0.0000	0.259	0.452

Outcome Variable: ET

Table 2: Effect of EE on EI (*Path b)*

Model: *Path b*						
	Coeff	**Se**	**t**	**P**	**LLCI**	**ULCI**
Constant	1.5000	0.201	7.476	0.0000	1.105	1.894
ATE	0.405(0.419)	0.048	8.410	0.0000	0.310	0.500
EE	0.2006(0.201)	0.497	4.036	0.0001	0.103	0.298

Outcome Variable: EI

Table 3: Total Effects and Direct Effect ATE on EI

***C* = *Total* Effects of ATE on EI**					
Effects	**Se**	**T**	**P**	**LLCI**	**ULCI**
0.476	0.0458	10.4009	0.0000	0.3861	0.5662
***C*^{l} = Direct Effects ATE on EI**					
Effects	**Se**	**T**	**P**	**LLCI**	**ULCI**
0.405	0.048	8.410	0.0000	0.310	0.500

Table 4: Standardized Indirect Effects of ATE on EI (Bootstrap 95% Biased Corrected)

	Effects	**BootSE**	**BootLLCI**	**BootULCI**
EE	0.074	0.022	0.032	0.118

Table 1 to 4 presents the results of simple mediation analysis, showing the relationship between students' attitude towards entrepreneurship, entrepreneurial training, and their intention for business start-ups. The results indicated that attitude towards entrepreneurship indirectly influences the intention for starting a new business, through entrepreneurial education (See Figure 6).

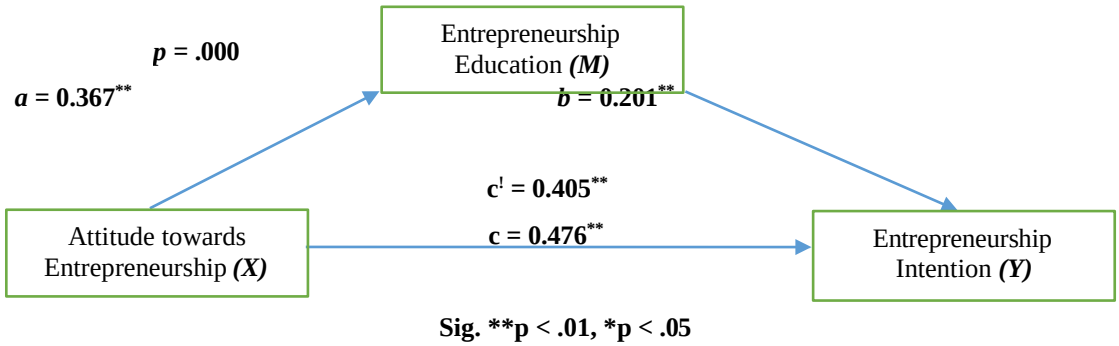

Figure 6. *The mediation effect of entrepreneurship education in the relationship between attitude towards entrepreneurship and entrepreneurship intention*

Specifically, Table 1 and 2 showed that the relationship between entrepreneurial attitude and entrepreneurial education is found to be significant and positive (**path a: 0.367, *p* = .000**) and entrepreneurial attitude also significantly influences entrepreneurship intention (**path b: 0.201, *p* = .000**). Further, the standardized indirect effect analysis based on 5000 bootstrap samples (Table 4) indicated a significant and positive result (**path a * path b: 0.074**), with 95% bias-corrected confidence interval (CI) excluding zero (**0.032 to 0.118**). In Table 3, we have seen that even after considering entrepreneurial education, entrepreneurship intention remained significant and positive (**c^{l} = 0.405****).

4.3 Parallel Mediation Analysis (Objective 2)

The simple mediation analysis showed that entrepreneurial education received in the classroom mediates the influence of students' attitude towards entrepreneurship and intention towards new business

In the indirect paths (*a* & *b*), we can, therefore, say that a unit change in students' entrepreneurial attitude influences entrepreneurial training by *a* = 36.7%; and holding constant entrepreneurial attitude, entrepreneurial education increases intention towards entrepreneurship by *b* = 20.1%. The direct effect ($c^{!}$) suggested that holding constant entrepreneurial attitude, a unit increase in entrepreneurial attitude increases entrepreneurial intention by 40.5%. Since the indirect and direct effects (a*b*c) is positive and significant, it is referred to as complementary mediation (Zhao et al., 2010).

creation. However, we noted earlier that the success of entrepreneurship education largely depends on the effective combinations of traditional and innovative teaching pedagogies. Therefore, in parallel mediation, we sought to know whether the mediation effects of entrepreneurial education are driven by the

selected pedagogies used in the delivery or not. Hence, we proposed live projects, meeting with entrepreneurs, and business plan pedagogies as parallel mediators. The goal is to see which of these pedagogies drives the success of entrepreneurship education in mediating the relationship between attitude towards entrepreneurship and intention towards business creation.

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Table 5: Effect ATE on Live project *(Path a_1)*

Model *Path* a_1						
	Coeff	Se	T	P	LLCI	ULCI
Constant	2.535	0.447	5.678	0.0000	1.657	3.413
ATE	0.482(0.212)	0.121	3.988	0.0001	0.244	0.720

Outcome Variable: Live project

Table 6: Effect of ATE on Meeting with Entrepreneurs *(Path a_2)*

Model *Path* a_2						
	Coeff	Se	t	P	LLCI	ULCI
Constant	1.648	0.602	2.737	0.0065	0.464	2.833
ATE	0.338(0.112	0.163	2.072	0.039	0.017	0.659

Outcome Variable: Meeting with Entrepreneurs

Table 7: Effect of ATE on Business Plan *(Path a_3)*

Model *Path* a_3						
	Coeff	Se	t	P	LLCI	ULCI
Constant	1.413	0.627	2.254	0.025	0.180	2.646
ATE	0.286(0.091)	0.170	1.682	0.094	-0.048	0.619

Outcome Variable: Business Plan

Table 8: Effects of Live project, Meeting with Entrepreneurs, & Business Plan on EI (P b_1 b_2 b_3)

Model Path b_1, b_2, b_3						
	Coeff	Se	t	P	LLCI	ULCI
Constant	1.216	0.334	3.594	0.0004	0.551	1.882
ATE	0.814(.446)	.0892	9.127	0.0000	0.639	0.989
Live Project	0.106(.132)	.0395	2.688	0.0076	0.029	0.184
MEntrep	-0.099(-.164)	.0310	-3.211	0.0015	-0.160	-0.039
BPlan	-0.028(-.048)	.0296	-.952	0.3419	-0.086	0.030

Outcome Variable: Entrepreneurial Intention (EI)

Table 9: Total and Direct Effects (ATE on EI)

***C* = Total Effects of ATE on EI**					
Effects	Se	T	p	LLCI	ULCI
0.8235	0.0888	9.2739	0.0000	0.6488	0.9982
***C'* = Direct Effects (ATE on EI)**					
Effects	Se	T	P	LLCI	ULCI
0.8139	0.0892	9.1269	0.0000	0.6385	0.9893

Table 10: Standardized Indirect Effect(s) of ATE on EI (Bootstrap 95% Biased Corrected)

	Effects	BootSE	BootLLCI	BootULCI
Total	0.0053	0.0193	-0.0321	0.0453
Live Project	0.0281	0.0158	0.0029	0.0632
Meeting with Entrepreneurs	-0.0184	0.0107	-0.0420	-0.0006
Business Plan	-0.0044	0.0056	-0.0182	0.0041

Findings of the parallel mediation analysis showed that students' attitude towards entrepreneurship had indirect effects on the intention for entrepreneurship, through its relationship with the lecture method and meeting with entrepreneurs' approach to entrepreneurial training delivering.

As shown in figure 4, attitude towards entrepreneurship relates positively and significantly to lecture method (***a₁* = 0.212, *p* = 0.000**); lecture method of delivering entrepreneurship training in turn influences intention for entrepreneurship **(b_1 = 0.132, p = 0.008**). Similarly, entrepreneurial attitude significantly correlates with meeting with entrepreneurs' approach (**a_2 = 0.112, p = 0.039**); meeting with entrepreneurs' approach for entrepreneurship training in turn affects entrepreneurial intention significantly (**b_2 = -0.164, p = 0.002**). Hayes (2013) bootstrapping method of estimating indirect effects showed that the indirect effects of entrepreneurial attitude on entrepreneurship intention, through lecture method of delivering entrepreneurship training (**a_1b_1 = 0.028**), holding another proposed mediator's constant is entirely above zero (**0.0029 to 0.063**) with 95% bias- corrected CI, thus significant.

Similarly, the indirect effect through meeting with entrepreneurs' approach (**a_2b_2 = 0.042**) was completely above zero after considering the proposed mediators in the model **(-0.042 to -0.001**). Conversely, the indirect effect, through business plan method was not different from zero (**-0.004; -0.018 to 0.004**). In this pathway, entrepreneurial attitude did not correlate with business plan method (***a₃* = 0.091, *p* = 0.094**), subsequently, business plan fails to affect entrepreneurial intention significantly (***b₃* = - 0.048, *p* = 0.342**). It is, however, important to note that controlling for all the three teaching methods, the direct effects of entrepreneurial attitude on intention for entrepreneurship (**c^{l} = 0.814, *p* = 0.000**) was statistically significant.

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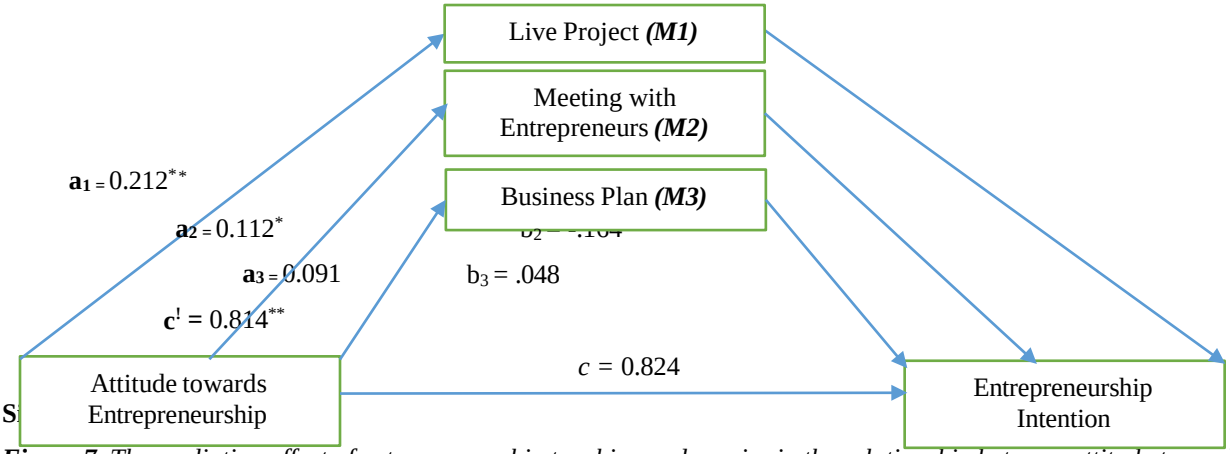

Figure 7. *The mediation effect of entrepreneurship teaching pedagogies in the relationship between attitude towards entrepreneurship and entrepreneurship intention*

The indirect pathways in figure 7, indicate that a unit change in entrepreneurial attitude influences live project and meeting with entrepreneurs approach to entrepreneurship teaching by 21.2% and 11.2% respectively; and holding constant entrepreneurial attitude, a unit increase in live project method influences entrepreneurship intention by 13.2%; however, a unit increase in meeting with entrepreneurs method of delivering entrepreneurship training, while controlling for attitude towards entrepreneurship decreases intention for new

business start-up by -16.4%. The study surprisingly revealed that personal attitude does not statistically correlate with business plan method of delivering entrepreneurship knowledge. Interestingly though, the direct effect of personal attitude towards entrepreneurship on intention towards entrepreneurial behaviour is significant ($c^{l} = 0.814$) means that controlling for the three entrepreneurship teaching approaches (live project, meeting with entrepreneurs, and business plan), a

unit increase in personal attitude towards entrepreneurship increases the intention for entrepreneurship by 81.4%.

5. 0 Discussion and Conclusion

The study utilized the PROCESS Macro for SPSS to analyze the interplay between entrepreneurial attitude, entrepreneurial education, and entrepreneurial intention. It found that entrepreneurship education mediates the relationship between entrepreneurial attitude and entrepreneurship intention, consistent with previous studies (Samuel et al., 2021; Fortin, 2002). However, different models have also examined both attitude and education as predictors of intention (Ayalew & Zeleke, 2018; Malebana, 2012; Fayolle et al., 2006), while others have explored attitude as a mediator between education and intention (Ayuo et al., 2017).

The study highlights the significant role of entrepreneurship education as a mediator in the attitude-to-intention relationship. It suggests that a positive attitude alone does not guarantee the development of entrepreneurial intention among undergraduate students, particularly in Northern Nigeria where external factors influence their intention. However, providing students with specific knowledge about entrepreneurship, including its challenges, possibilities, and support sources, through entrepreneurship education can influence their intention to pursue entrepreneurship as a career option. This aligns with the objectives of the Compulsory Entrepreneurship Education Policy, 2006 in Nigeria.

Additionally, the study examines whether the mediation effect of entrepreneurship education on the attitude-intention relationship is influenced by the pedagogies employed in universities. Through parallel mediation analysis, it reveals that the use of live projects and interactions with entrepreneurs significantly contribute to the mediation role of entrepreneurship education. However, the business plan method does not show a significant mediation effect.

The study attributes the ineffectiveness of the business plan method in this context to its implementation in Nigerian educational institutions. It notes that students often perceive the business plan as a grading requirement rather than a vital aspect of entrepreneurship success. Jones (2010) suggests that the business plan method can be effective if students are taught to develop plans based on their actual resources, which boosts their confidence to pursue business ideas.

To sum up, the study confirms the mediation effect of entrepreneurship education on the attitude-intention relationship and highlights the importance of pedagogical approaches. It emphasizes that a combination of effective pedagogies, including both traditional and non-traditional methods, tailored to the specific context, is crucial for the effectiveness of entrepreneurship education.

6.0 Implications of the study

The present study contributes significantly to theory and practice by affirming the flexibility of the Theory of Planned Behaviour (TPB) to incorporate additional factors beyond the original model. The integration of entrepreneurship education and teaching pedagogies into the TPB as predictors of entrepreneurial intention provides a valuable framework for future researchers in entrepreneurship and related fields. The study sheds light on the relationship among entrepreneurship education, innovative teaching pedagogies, and entrepreneurial intention in a collectivistic society like Nigeria. It emphasizes that effective entrepreneurship education requires the practical and understandable implementation of diverse teaching pedagogies, enabling students to develop confidence and readiness to pursue business opportunities. The findings of this study can serve as a reference for university management and teachers conducting further research in this and related fields.

Limitations and Future directions

The conclusions drawn from the present study are limited by cross-sectional study of undergraduates, who were exposed to entrepreneurship education through pedagogies adopted in Nigerian Universities. Hence, more studies using samples of students drawn from polytechnics, colleges, and other universities in different contexts would be of immense benefit in determining the effects of entrepreneurship education and making the policy of compulsory entrepreneurship education to all a successful one. Similarly, in this study the mediation effect of few teaching pedagogies has been examined, there is a need to study other types of entrepreneurship education teaching pedagogies in different context. It will help in drawing a wide-ranging conclusion on the role of the diverse teaching pedagogies.

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