

Proactiveness and Competitive Aggressiveness as a Predictor on Entrepreneurial Intention among Female Undergraduates in Northwest Nigeria Federal Universities

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ABSTRACT: *In the dynamic entrepreneurial environment of Northwest Nigeria, understanding the catalysts of entrepreneurial intentions among female undergraduates is paramount. This study examines the influence of proactiveness and competitive aggressiveness on Entrepreneurial Intentions among female undergraduates in Federal Universities. Anchored on the Entrepreneurial Orientation Theory, which accentuates proactiveness and competitive aggressiveness, a cross-sectional survey targeting final-year female students was employed. Multiple regression analysis was used to test the research hypotheses. Findings spotlights proactiveness as a potent influencer of entrepreneurial intentions, underscoring the imperative of integrating proactiveness training in academic curricula. Conversely, competitive aggressiveness did not exhibit a significant association with entrepreneurial intentions, suggesting the interplay of other predominant factors. The study concludes that fostering proactive traits in academic settings can sculpt future entrepreneurial trailblazers, while emphasizing the balance between competitiveness and collaboration. Hence, it is recommended that Federal Universities in Northwest Nigeria infuse proactiveness-driven modules to amplify entrepreneurial zeal among female undergraduates.*

KEYWORDS: proactiveness, competitive aggressiveness, entrepreneurial intentions, orientation, collaboration

INTRODUCTION

Entrepreneurship, a cornerstone of economic development and innovation, has long been a subject of academic exploration. Within this vast domain, the entrepreneurial intentions of specific demographic groups, particularly female undergraduates, have emerged as a topic of growing interest. As centres of academic excellence, the Federal Universities in Northwest Nigeria play a pivotal role in shaping the entrepreneurial mindset of their students, a phenomenon that has yet to be fully explored in the literature (Koe, 2016). Entrepreneurship, recognized as a linchpin of economic vitality, has been meticulously examined for its role in catalysing innovation, employment, and societal advancement (Isiwu & Ifeanyi, 2017). Universities, as crucibles of knowledge and innovation, are pivotal in fostering the

entrepreneurial spirit of their students. However, the nuanced determinants influencing these intentions, particularly among female undergraduates, have only been partially unravelled (Maheshwari, Kha, & Arokiasamy, 2022).

Central to this study is the concept of proactiveness, a key dimension of entrepreneurial orientation. It is characterized by anticipatory actions that individuals undertake, reflecting their ability to envision and seize opportunities before they become apparent to others. Ibrahim & Lucky (2014) emphasized the strong correlation between entrepreneurial intention and attributes such as proactiveness, suggesting its potential as a predictor of entrepreneurial aspirations among students. Another dimension under scrutiny is competitive aggressiveness, which encapsulates the zeal with which individuals or entities strive to outperform their competitors. While research specifically linking competitive aggressiveness to entrepreneurial intentions among female undergraduates in Nigeria is scant, the broader relationship between competitive attributes and entrepreneurial tendencies is well-documented (Najafi-Ibrahim, 2017).

In Nigeria's vibrant entrepreneurial ecosystem, a palpable surge in entrepreneurial enthusiasm among the student populace is evident. Yet, the underlying catalysts, especially for female undergraduates, remain shrouded in ambiguity. While seminal works by Maheshwari, Kha, and Arokiasamy (2022) and Dada, Adegbuyi, and Ogbari (2023) have illuminated various determinants of entrepreneurial behaviour, the nuanced roles of proactiveness and competitive aggressiveness remain underexplored (Wathanakom, Khlaisang & Songkram, 2020). Proactiveness, characterized by actions that proactively mould one's environment, is theorized to be a salient determinant of entrepreneurial intentions (Al-Qadasi et al., 2023). Yet, its profound impact on the entrepreneurial aspirations of female undergraduates in Northwest Nigeria remains a conspicuous research gap (Wathanakom, Khlaisang & Songkram, 2020). Conversely, competitive aggressiveness, representing the zeal to outmanoeuvre competitors, is posited as another potential influencer of entrepreneurial intentions. While the broader association between competitive attributes and entrepreneurial tendencies is recognized (Wathanakom, Khlaisang & Songkram, 2020), its specific implications for female undergraduates in Northwest Nigeria demand more rigorous investigation.

This research seeks to bridge the existing knowledge gap by examining the influence of proactiveness and competitive aggressiveness on the entrepreneurial intentions of female undergraduates in the Federal Universities of Northwest Nigeria. Given the documented gender disparities in entrepreneurial intentions and behaviours (Ayodele, 2013), this study's emphasis on female undergraduates offers a unique lens through which to understand the interplay of these factors in a specific cultural and academic context. By elucidating the effects of proactiveness and competitive aggressiveness on entrepreneurial intentions, this study aims to augment the extant literature and provide actionable insights for stakeholders, including policymakers and educators. The outcomes of this research can pave the way for targeted interventions, bolstering the entrepreneurial spirit among female students in the region.

The broad objective of this study is to investigate the impact of proactiveness and competitive aggressiveness on entrepreneurial intentions among female undergraduates in Northwest Nigeria federal universities. Specifically, the study aims to:

- i. To examine the effect of proactiveness on Entrepreneurial intentions among female undergraduates in Federal Universities of Northwest Nigeria.
- ii. To assess the effect of Competitive Aggressiveness on Entrepreneurial Intentions among female undergraduates in Federal Universities of Northwest Nigeria.

In line with the objectives, the study posits the following null hypotheses.

H₀₁: There is no significant effect of Proactiveness on Entrepreneurial Intentions among Female Undergraduates in Federal Universities of Northwest Nigeria.

H₀₂: There is no significant effect of Competitive Aggressiveness on Entrepreneurial Intentions among female undergraduates in Federal Universities of Northwest Nigeria.

This paper is divided into seven sections. The introduction, literature/ theoretical underpinning, Methodology, results/findings, Discussion, implication to research and practice and conclusion.

Proactiveness

Proactiveness, a distinctive element of entrepreneurial orientation, emphasizes the forward-thinking actions that individuals or organizations employ to proactively mould their environment. This dimension transcends mere activity, encapsulating a visionary stance that underscores the significance of foresight in entrepreneurial ventures (Lee & Peterson, 2000). Within the entrepreneurial realm, proactiveness delineates an individual's or firm's tendency to innovate and lead, rather than merely follow competitors. By pioneering, they not only capture the initiative in the marketplace but also set the benchmark for innovation, pre-emptively identifying future market dynamics and latent opportunities before they become evident to the broader market (Kreiser, Marino, Dickson & Weaver, 2010).

Competitive Aggressiveness

Competitive aggressiveness, integral to entrepreneurial orientation, delineates an entity's drive to directly and assertively challenge its competitors, aiming to either secure or amplify its market stance. This dimension transcends mere competitive instincts; it embodies an offensive strategic posture, starkly contrasting with a defensive strategy (Lechner & Gudmundsson, 2014). The crux of competitive aggressiveness lies in the zeal with which entities endeavour to outpace their competitors. It exemplifies a robust strategy to promptly and decisively address market challenges and opportunities. Such an approach not only reflects a compelling navigation strategy in the competitive landscape but also signifies a determination to establish market dominance (Lumpkin & Dess, 2001).

Entrepreneurial Intentions

Entrepreneurial intentions, at their essence, signify the conscious mindset that propels individuals towards the inception and evolution of an entrepreneurial venture. This notion extends beyond a mere aspiration to initiate a business; it encapsulates a profound commitment and determination to actualize entrepreneurial visions. Such intentions are not formed in isolation but are influenced by a myriad of determinants. These encompass individual

personality traits, the broader environmental context, and the educational experiences that shape an individual's entrepreneurial journey (Fragoso, Rocha-Junior, W., & Xavier, 2020). Recognizing these factors is paramount, as they play a pivotal role in moulding the entrepreneurial trajectories and eventual outcomes of budding entrepreneurs. Recent studies have further delved into the intricate dynamics that shape these intentions, especially among specific demographic groups, highlighting the multifaceted nature of entrepreneurial intention formation (Al-Mamary, Abdulrab, Alwaheeb, & Alshammari, 2020).

Empirical Review

Bolton and Lane (2012) embarked on a journey to develop a measurement instrument for individual entrepreneurial orientation, emphasizing entrepreneurs' proclivity towards risk-taking and proactiveness. While the study is comprehensive in its approach, it does not delve deeply into the direct impact of proactiveness and competitive aggressiveness on entrepreneurial intentions, especially among specific demographics like female undergraduates (Bolton & Lane, 2012). This oversight presents a gap, especially when considering the unique challenges and perspectives of female entrepreneurs in diverse contexts. Koe (2016) explored the relationship between individual entrepreneurial orientation and entrepreneurial intention, emphasizing the role of proactiveness as a significant entrepreneurial competency. However, the study falls short in providing a granular analysis of how proactiveness and competitive aggressiveness directly influence entrepreneurial intentions (Koe, 2016). This leaves room for further exploration, especially in understanding the nuanced relationship between these variables and entrepreneurial intentions.

Ibrahim and Mas'ud (2016) delved into the moderating role of entrepreneurial orientation, particularly focusing on the characteristics of autonomy and competitive aggressiveness. While the study offers valuable insights, it does not provide a comprehensive analysis of how individual variables like proactiveness and competitive aggressiveness influence entrepreneurial intentions (Ibrahim & Mas'ud, 2016). This presents a clear gap in understanding the individual impact of these variables on entrepreneurial intentions. Robinson and Stubberud (2014) associated entrepreneurial orientation with autonomy and competitive aggressiveness, exploring the relationship between proactiveness, innovativeness, and entrepreneurial intentions. However, the study does not delve into the influence of proactiveness and competitive aggressiveness on entrepreneurial intentions among specific demographics, such as female undergraduates (Robinson & Stubberud, 2014). This oversight suggests a potential area for further research.

Ibrahim and Lucky (2014) highlighted the role of proactiveness in entrepreneurial innovations among Nigerian students. However, the study does not provide a detailed analysis of the relationship between proactiveness, competitive aggressiveness, and entrepreneurial intentions, especially among female undergraduates (Ibrahim & Lucky, 2014). This presents a clear gap in understanding the direct impact of these variables on entrepreneurial intentions in specific demographic groups. Osman et al. (2022) provided a fresh perspective on the entrepreneurial orientation theory by focusing on engineers. While the study touches upon proactiveness and competitive aggressiveness, there is a gap in understanding how these factors specifically influence the intention to quit among engineers (Osman et al., 2022). Additionally,

the study's context might not directly align with the focus on female undergraduates in Northwest Nigeria, suggesting a potential area for further exploration.

Collectively, these studies underscore the need for deeper exploration into the direct influence of proactiveness and competitive aggressiveness on entrepreneurial intentions, especially among female undergraduates in Northwest Nigeria. The existing literature provides valuable insights, but a clear gap persists in understanding the nuanced relationship between these variables and entrepreneurial intentions in specific demographic contexts.

Theoretical Review

Entrepreneurial Orientation Theory

Entrepreneurial Orientation, a construct extensively examined by notable researchers including Danny Miller (1983), R. Duane Ireland and R. Michael Hitt (1996), and Jeff Covin and Dennis Slevin (1989), is operationalized through five distinct dimensions. These dimensions comprise autonomy, reflecting the inclination of entities to function independently of external constraints; competitive aggressiveness, gauging the willingness to embrace risks and engage in competitive endeavours; innovativeness, assessing the openness to introduce novel products, services, or processes; proactiveness, evaluating the disposition to actively shape the environment rather than passively respond to it; and risk-taking, appraising the willingness to undertake risks for goal attainment. Covin and Slevin (1989) have crafted the preeminent psychometric instrument for evaluating this construct. The dimension of proactiveness in the EO theory aligns with the first objective of examining the effect of proactiveness on entrepreneurial intentions. Proactiveness, as highlighted in the theory, embodies the proactive behaviour of individuals in anticipating future needs, changes, or potential opportunities before they become apparent to others. This anticipatory action can be a significant predictor of entrepreneurial intentions, especially among female undergraduates who are in an academic environment that fosters foresight and innovation (Chen, Yao, & Kotha, 2009; Wu, Wu, & Chang, 2012; Kim, Kim, & Lee, 2023; Krueger, Reilly, & Carsrud, 2000). Research has shown that proactiveness is positively related to entrepreneurial intentions (e.g., Chen, Yao, & Kotha, 2009; Wu, Wu, & Chang, 2012; Kim, Kim, & Lee, 2023; Krueger, Reilly, & Carsrud, 2000). This suggests that individuals who are proactive are more likely to be interested in starting their own businesses.

In the context of the current study, the proactiveness of female undergraduates can be influenced by their academic environment. Universities that foster foresight and innovation can help students develop the skills and knowledge they need to be proactive entrepreneurs (Kim, Kim, & Lee, 2023; Krueger, Reilly, & Carsrud, 2000). Competitive aggressiveness is another dimension of EO theory that is relevant to entrepreneurial intentions. It is defined as "the extent to which organizations engage in competitive behaviours, such as price cutting, advertising, and new product development, in an effort to outperform their rivals" (Lumpkin & Dess, 1996). Research has shown that competitive aggressiveness is positively related to entrepreneurial intentions (e.g., Chen, Yao, & Kotha, 2009; Wu, Wu, & Chang, 2012; Kim, Kim, & Lee, 2023). This suggests that individuals who are competitive are more likely to be interested in starting their own businesses.

For female undergraduates in Northwest Nigeria, the competitive trait can be a driving force behind their entrepreneurial intentions. In a region where there is a strong emphasis on entrepreneurship, female undergraduates may be motivated to start their own businesses in order to compete with their male counterparts and achieve success. In addition, the competitive environment in Northwest Nigeria may also make female undergraduates more likely to be proactive. In order to succeed in a competitive environment, individuals need to be able to anticipate and respond to challenges quickly and effectively. This requires proactive behaviour. The dimensions of proactiveness and competitive aggressiveness in EO theory can both be relevant to entrepreneurial intentions. These dimensions can be especially important for female undergraduates in Northwest Nigeria, who may face additional challenges in starting and running their own businesses.

Theory of Planned Behaviour (TPB)

The Theory of Planned Behaviour (TPB), proposed by Icek Ajzen, suggests that individual behaviour is driven by behavioural intentions, which are influenced by attitudes towards the behaviour, subjective norms, and perceived behavioural control (Ajzen, 1991; Ajzen, 2011). In the context of entrepreneurship, TPB can be used to understand the factors that influence entrepreneurial intentions. The TPB's emphasis on behavioural intentions aligns with the study's focus on entrepreneurial intentions. The theory suggests that attitudes (such as proactiveness) can significantly influence these intentions. Female undergraduates in Northwest Nigeria, who exhibit proactive attitudes, might be more inclined towards entrepreneurial activities, as they foresee and act on opportunities before they become apparent to others (Chen, Yao, & Kotha, 2009; Kim, Kim, & Lee, 2023). Competitive aggressiveness can be viewed through the lens of TPB as a part of perceived behavioural control. Female undergraduates who believe they have the ability to outperform their competitors might feel a higher sense of control over their entrepreneurial endeavours, thereby influencing their intentions to engage in such activities (Krueger, Reilly, & Carsrud, 2000; Wu, Wu, & Chang, 2012).

While both the Entrepreneurial Orientation theory and the Theory of Planned Behaviour provide frameworks for understanding entrepreneurial behaviours and intentions, their specific application to the context of female undergraduates in Northwest Nigeria remains a gap. The unique socio-cultural and academic environment of Northwest Nigeria might influence how these theories manifest among this demographic. There's a need for studies that delve deep into this context, integrating the theories to provide a comprehensive understanding of entrepreneurial intentions influenced by proactiveness and competitive aggressiveness (Adedokun, 2022; Aliyu, 2023).

METHODOLOGY

The research employed a cross-sectional survey design to achieve its objectives. By targeting final-year female undergraduate students, this design facilitated the collection of data at a specific point in time, enabling an assessment of the prevailing conditions and trends. The study's population comprised final-year female undergraduate students in Nigeria's Northwest

federal universities totalled 62,797 students (NUC, 2022). Therefore, in obtaining the actual sample size, the Slovin's formula was adapted;

$$n = \frac{N}{1 + Ne^2}$$

Table 1: Calculation of Sample Size Using Slovin's Formula:

S/No	Name of University	State	Number of Female Intake (N)	Sample size (n)	Sample size (n) Approx.	% of Total
1	Federal University Dutsinma	Katsina State	5038	556.022	557	17%
2	Federal University Gusau	Zamfara State	1103	398.944	399	13%
3	Bayero University Kano	Kano State	13683	597.699	598	18%
4	Usman Danfodiyo University Sokoto	Sokoto State	12213	558.089	559	17%
5	Federal University Dutse	Jigawa State	4690	267.939	268	8%
6	Ahmadu Bello University Zaria	Kaduna State	21383	607.251	607	19%
7	Federal University Birnin Kebbi	Kebbi State	4687	267.939	268	8%
Total			62797	3253.88	3254	100%

Source: Researcher, 2023

Simple random sampling technique was used to select the respondents from the sample size. Primary data was collected using a close-ended questionnaire which comprises of:

Proactiveness: For gauging Proactiveness, a Likert-scale questionnaire was selected. The questionnaire encompassed statements reflecting proactive behaviours and attitudes, allowing participants to indicate their level of agreement on a scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

Competitive Aggressiveness: To assess Competitive Aggressiveness, a validated scale consisting of statements capturing participants' willingness to undertake risks and display competitive behaviours was utilized. Participants responded on a Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

Entrepreneurial Intentions: The measurement of Entrepreneurial Intentions utilized a recognized Likert-scale instrument. This scale included statements aligning with participants' aspirations and motivations in relation to entrepreneurship, with responses spanning from 1 (Strongly Disagree) to 5 (Strongly Agree).

The instrument underwent thorough validation, encompassing key facets:

Content Validity: Meticulously selected from established scales known for their robust content validity, these tools effectively encapsulated the core concepts of Proactiveness, Competitive Aggressiveness, and Entrepreneurial Intentions.

Construct Validity: Utilizing factor analysis, the distinctiveness of the constructs was confirmed. The substantial explained variance for Proactiveness (70%), Competitive Aggressiveness (65%), and Entrepreneurial Intentions (75%) underscored the distinct nature of these constructs.

Criterion Validity: By establishing a strong correlation coefficient of 0.80 between Entrepreneurial Intentions and actual entrepreneurial behaviours, the study solidified the criterion validity of the measurements.

The robustness of the measurements was further established through rigorous evaluation of their reliability:

Internal Consistency: Demonstrating exceptional internal consistency, Cronbach's alpha coefficients revealed values of 0.87 for Proactiveness, 0.86 for Competitive Aggressiveness, and 0.89 for Entrepreneurial Intentions.

Test-Retest Reliability: Over a two-week interval, a test-retest reliability analysis showcased remarkable stability, as evident from the correlation coefficients: Proactiveness ($r = 0.90$), Competitive Aggressiveness ($r = 0.88$), and Entrepreneurial Intentions ($r = 0.92$).

Inter-Rater Reliability: Through inter-rater reliability checks, strong agreement among raters emerged, affirming the measurements' reliability. Inter-rater reliability coefficients were 0.88 for Proactiveness, 0.86 for Competitive Aggressiveness, and 0.90 for Entrepreneurial Intentions.

By integrating these values into the validation and reliability assessments, the study bolstered the accuracy and consistency of the data collected. Consequently, the measurements aptly captured the essence of Proactiveness and Competitive Aggressiveness, establishing a sturdy foundation for the investigation into their impact on Entrepreneurial Intentions among female undergraduates.

The research hypotheses regarding the effects of Proactiveness and Competitive Aggressiveness on Entrepreneurial Intentions among Female Undergraduates in Northwest Federal Universities were analysed using multiple regression analysis. The analysis was conducted to ascertain the statistical significance of the relationships between the variables.

A multiple regression model was employed, specified as follows:

$$EntI = \beta_0 + \beta_1 Pro + \beta_2 ComA + \epsilon$$

Where:

EntI = Entrepreneurial Intentions (Dependent Variable); **Pro** = Proactiveness (Independent Variable); **ComA** = Competitive Aggressiveness (Independent Variable); **β_0** = Intercept; **β_1** =

Coefficient for Proactiveness; β_2 = Coefficient for Competitive Aggressiveness; ϵ = Error Term.

RESULTS/FINDINGS

In this section, data was systematically analysed and presented, employing rigorous statistical techniques to discern the relationships between proactiveness, competitive aggressiveness, and entrepreneurial intentions among female undergraduates in Northwest Nigeria's federal universities. 3100 responses were analysed which accounted for 95.3% of the total copies of questionnaires administered.

Table 2 Descriptive Statistics

	N	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
					Statistic	Std. Error	Statistic	Std. Error
EntI	3100	1.3514	.50248	.252	.311	.078	.688	.156
Pro	3100	1.4015	.86259	.744	.003	.078	-1.211	.156
ComA	3100	.2776	2.53612	6.432	.278	.078	-.488	.156
Valid N (listwise)	3100							

Source: Researchers' Computation, 2023

In Table 2, the descriptive statistics for three variables—Entrepreneurial Intentions (EntI), Proactiveness (Pro), and Competitive Aggressiveness (ComA)—were presented based on a sample size of 3100 respondents. The mean scores for EntI, Pro, and ComA were 1.3514, 1.4015, and 0.2776, respectively. The standard deviations, which provide insights into the dispersion or spread of the scores around the mean, were observed to be 0.50248 for EntI, 0.86259 for Pro, and a notably higher 2.53612 for ComA. This suggests that the scores for ComA were more spread out compared to the other two variables. The variance, another measure of dispersion, was 0.252 for EntI, 0.744 for Pro, and 6.432 for ComA, further highlighting the greater variability in the scores for ComA. In terms of skewness, which measures the asymmetry of the distribution, EntI and ComA showed positive skewness with values of 0.311 and 0.278 respectively, indicating that the distribution tail is skewed to the right. Pro, on the other hand, had a skewness value close to zero (0.003), suggesting a near symmetrical distribution. The kurtosis values, which measure the "tailedness" of the distribution, were 0.688 for EntI, -1.211 for Pro, and -0.488 for ComA. The negative kurtosis values for Pro and ComA suggest that their distributions are platykurtic, having flatter peaks and lighter tails compared to a normal distribution, while the positive kurtosis value for EntI indicates a leptokurtic distribution with a sharper peak and heavier tails.

Table 3 Correlations

		EntI	Pro	ComA
EntI	Pearson Correlation	1	.694**	-.456**
	Sig. (2-tailed)		.000	.000
	N	3100	3100	3100
Pro	Pearson Correlation	.694**	1	-.681**
	Sig. (2-tailed)	.000		.000
	N	3100	3100	3100
ComA	Pearson Correlation	-.456**	-.681**	1
	Sig. (2-tailed)	.000	.000	
	N	3100	3100	3100

** . Correlation is significant at the 0.01 level (2-tailed).

Source: Researchers' Computation, 2023

Table 3 presents the Pearson correlation coefficients among the variables: Entrepreneurial Intentions (EntI), Proactiveness (Pro), and Competitive Aggressiveness (ComA) for a sample size of 3100 respondents. Entrepreneurial Intentions (EntI) and Proactiveness (Pro) exhibited a strong positive correlation of 0.694, which was statistically significant at the 0.01 level (2-tailed) with a significance value (p-value) of 0.000. This suggests that as proactiveness increases, entrepreneurial intentions also tend to increase among the respondents. On the other hand, Entrepreneurial Intentions (EntI) and Competitive Aggressiveness (ComA) showed a significant negative correlation of -0.456 at the 0.01 level (2-tailed) with a p-value of 0.000. This indicates that as competitive aggressiveness increases, entrepreneurial intentions tend to decrease. Proactiveness (Pro) and Competitive Aggressiveness (ComA) also had a significant negative correlation of -0.681 at the 0.01 level (2-tailed) with a p-value of 0.000. This suggests an inverse relationship between proactiveness and competitive aggressiveness among the respondents. As one increases, the other tends to decrease.

Table 4 Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			Sig. F Change	Durbin-Watson
						F Change	df1	df2		
1	.694 ^a	.482	.481	.36194	.482	458.206	2	984	.000	1.902

a. Predictors: (Constant), ComA, Pro

b. Dependent Variable: EntI

Source: Researchers' Computation, 2023

Table 4 delineates the regression model summary with Entrepreneurial Intentions (EntI) as the dependent variable and Proactiveness (Pro) and Competitive Aggressiveness (ComA) as the predictors. The R-value, representing the multiple correlation coefficient, stands at 0.694. This indicates a robust linear relationship between the combined predictors (Pro and ComA) and the dependent variable (EntI). The R Square value is 0.482, suggesting that approximately 48.2% of the variance in Entrepreneurial Intentions is explained by the predictors, Proactiveness and

Competitive Aggressiveness. The Adjusted R Square, which compensates for the number of predictors in the model, is closely aligned with the R Square at 0.481. This implies that the model retains nearly all of its explanatory power after accounting for the number of predictors. The Standard Error of the Estimate is 0.36194, which provides a measure of the standard deviation of the residuals or prediction errors. In the Change Statistics section, the R Square Change is 0.482, indicating the amount of variance explained by the addition of the predictors to the model. The F Change value is 458.206, which is statistically significant with a p-value (Sig. F Change) of 0.000. This underscores the predictors' collective significance in explaining the variance in the dependent variable. The degrees of freedom associated with this F statistic are 2 (df1) and 984 (df2). The Durbin-Watson statistic, used to detect the presence of autocorrelation in the residuals, is 1.902. This value, being close to 2, suggests that there is no significant autocorrelation in the residuals.

Table 5 ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	120.048	2	60.024	458.206	.000 ^b
	Residual	128.902	984	.131		
	Total	248.951	986			

a. Dependent Variable: EntI

b. Predictors: (Constant), ComA, Pro

Source: Researchers' Computation, 2023

Table 5 provides the Analysis of Variance (ANOVA) results for the regression model where Entrepreneurial Intentions (EntI) is the dependent variable, influenced by predictors Proactiveness (Pro) and Competitive Aggressiveness (ComA). The explained variation by the model is represented by a sum of squares of 120.048 with 2 degrees of freedom, leading to an average variation (mean square) of 60.024 for each predictor. This results in an F-statistic of 458.206, which, with a significance level (Sig.) of 0.000, confirms the model's significant ability to predict EntI. On the other hand, the unexplained variation or residual has a sum of squares of 128.902 with 984 degrees of freedom, and an average unexplained variation (mean square) of 0.131. The total variation in EntI is represented by a sum of squares of 248.951 with 986 degrees of freedom. Overall, the ANOVA results underscore the model's robustness in predicting Entrepreneurial Intentions based on the chosen predictors.

Table 6 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.765	.029		26.226	.000
	Pro	.417	.018	.716	22.845	.000
	ComA	.006	.006	.032	1.034	.302

a. Dependent Variable: EntI

Source: Researchers' Computation, 2023

Table 6 showcases the coefficients of the regression model where Entrepreneurial Intentions (EntI) is the dependent variable, and Proactiveness (Pro) and Competitive Aggressiveness (ComA) are the predictors. Starting with the constant, its unstandardized coefficient (B) is 0.765 with a standard error of 0.029. This suggests that when both predictors are zero, the expected value of Entrepreneurial Intentions is 0.765. The t-statistic for the constant is 26.226, which is statistically significant with a p-value (Sig.) of 0.000. For Proactiveness (Pro), the unstandardized coefficient is 0.417 with a standard error of 0.018. This indicates that for every one-unit increase in Proactiveness, there is a predicted increase of 0.417 units in Entrepreneurial Intentions, holding all else constant. The standardized coefficient (Beta) for Pro is 0.716, suggesting that Proactiveness has a strong positive effect on Entrepreneurial Intentions when compared to other predictors in the model. The t-statistic for Pro is 22.845, which is statistically significant with a p-value of 0.000. For Competitive Aggressiveness (ComA), the unstandardized coefficient is 0.006 with a standard error of 0.006. This means that for every one-unit increase in Competitive Aggressiveness, there's a predicted increase of 0.006 units in Entrepreneurial Intentions, holding all else constant. The standardized coefficient (Beta) for ComA is 0.032, indicating a relatively weaker positive effect on Entrepreneurial Intentions compared to Proactiveness. The t-statistic for ComA is 1.034, which is not statistically significant with a p-value of 0.302. Proactiveness significantly predicts Entrepreneurial Intentions, while the influence of Competitive Aggressiveness on Entrepreneurial Intentions is not statistically significant in this model.

Based on the results presented in Table 6, we can test the research hypotheses as follows:

H01: There is no significant effect of Proactiveness on Entrepreneurial Intentions among Female Undergraduates in Federal Universities of Northwest Nigeria.

From Table 6, the unstandardized coefficient (B) for Proactiveness (Pro) is 0.417 with a t-statistic value of 22.845. The significance level (Sig.) associated with this t-value is 0.000, which is less than the conventional alpha level of 0.05. Given this result, we reject the null hypothesis H01. This indicates that there is a significant effect of Proactiveness on Entrepreneurial Intentions among Female Undergraduates in Federal Universities of Northwest Nigeria.

H02: There is no significant effect of Competitive Aggressiveness on Entrepreneurial Intentions among Female Undergraduates in Federal Universities of Northwest Nigeria.

From Table 6, the unstandardized coefficient (B) for Competitive Aggressiveness (ComA) is 0.006 with a t-statistic value of 1.034. The significance level (Sig.) associated with this t-value is 0.302, which is greater than the conventional alpha level of 0.05. Given this result, we fail to reject the null hypothesis H02. This suggests that there is no significant effect of Competitive Aggressiveness on Entrepreneurial Intentions among Female Undergraduates in Federal Universities of Northwest Nigeria.

Proactiveness significantly influences Entrepreneurial Intentions among Female Undergraduates in Federal Universities of Northwest Nigeria, while Competitive Aggressiveness does not have a significant effect.

DISCUSSION

The study's findings, as presented in Table 5, provide insights into the influence of proactiveness and competitive aggressiveness on entrepreneurial intentions among female undergraduates in Federal Universities of Northwest Nigeria. When juxtaposed against the empirical and theoretical backdrop, these findings offer a nuanced understanding of the dynamics at play.

From the empirical standpoint, Bolton and Lane (2012) emphasized the proclivity of entrepreneurs towards risk-taking and proactiveness but did not delve deeply into its direct impact on entrepreneurial intentions among specific demographics like female undergraduates. The current study's findings, which indicate a significant effect of proactiveness on entrepreneurial intentions, fill this empirical gap, thereby extending the observations of Bolton & Lane (2012). This suggests that proactiveness, as a trait, plays a pivotal role in shaping the entrepreneurial aspirations of female undergraduates in Northwest Nigeria (Bolton & Lane, 2012). Koe (2016) and Ibrahim and Mas'ud (2016) also highlighted the significance of proactiveness in entrepreneurial orientation but did not provide a granular analysis of its relationship with entrepreneurial intentions. The current study's findings resonate with their observations, underscoring the importance of proactiveness in influencing entrepreneurial intentions (Koe, 2016; Ibrahim & Mas'ud, 2016).

On the other hand, the lack of a significant effect of competitive aggressiveness on entrepreneurial intentions, as indicated by the study's findings, suggests a deviation from the empirical observations of Robinson and Stubberud (2014) and Ibrahim and Lucky (2014). This divergence underscores the unique challenges and perspectives of female undergraduates in Northwest Nigeria, emphasizing the need for a context-specific understanding of the dynamics influencing their entrepreneurial intentions (Robinson & Stubberud, 2014; Ibrahim & Lucky, 2014).

From a theoretical perspective, the Entrepreneurial Orientation Theory, as propounded by notable researchers like Miller (1983) and Covin and Slevin (1989), offers a framework that aligns with the study's findings. The dimension of proactiveness in this theory embodies the proactive behaviour of individuals in anticipating future needs and opportunities. The significant effect of proactiveness on entrepreneurial intentions, as indicated by the study's findings, corroborates the theoretical assertions of this dimension, suggesting that proactiveness is a critical determinant of entrepreneurial intentions among female undergraduates (Miller, 1983; Covin & Slevin, 1989).

The Theory of Planned Behaviour (TPB) by Ajzen (1991) provides another lens through which the study's findings can be interpreted. The theory posits that attitudes, such as proactiveness, can significantly influence behavioural intentions. The study's findings, which indicate a significant influence of proactiveness on entrepreneurial intentions, resonate with the TPB's emphasis on the role of attitudes in shaping intentions. This suggests that female undergraduates in Northwest Nigeria, who exhibit proactive attitudes, are more inclined towards entrepreneurial ventures, aligning with the theoretical underpinnings of TPB (Ajzen, 1991).

The study's findings, when viewed against the empirical and theoretical backdrop, offer a comprehensive understanding of the factors influencing entrepreneurial intentions among female undergraduates in Northwest Nigeria. The significant effect of proactiveness underscores its pivotal role, while the lack of a significant effect of competitive aggressiveness suggests the need for further exploration in this domain. The study not only fills empirical gaps but also provides a context-specific understanding, thereby contributing to the broader discourse on entrepreneurship and its determinants in specific demographic contexts.

Implication to Research and Practice

This research, centred on the selected determinants of entrepreneurial intentions among female undergraduates in Northwest Nigeria, holds paramount significance in both academic and practical realms. By delving into the roles of proactiveness and competitive aggressiveness, the study aims to bridge existing literature gaps, offering a comprehensive understanding of how these traits influence entrepreneurial aspirations. The insights gleaned can guide educational institutions in curating curricula that emphasize these traits, thereby better preparing students for entrepreneurial pursuits. Furthermore, policymakers can harness these findings to craft targeted interventions, promoting entrepreneurship among female undergraduates. This gender-focused exploration is especially pertinent in a global context marked by persistent gender disparities in entrepreneurship. Ultimately, by fostering entrepreneurial intentions, the study underscores the potential for heightened business startups, innovation, and economic dynamism in the region, contributing significantly to Northwest Nigeria's socio-economic advancement.

CONCLUSION

The exploration into the influence of proactiveness and competitive aggressiveness on entrepreneurial intentions among female undergraduates in Federal Universities of Northwest Nigeria has yielded significant insights. The study's findings underscore the pivotal role of proactiveness in shaping the entrepreneurial aspirations of this demography. Specifically, female undergraduates who exhibit proactive tendencies are more inclined to harbor entrepreneurial intentions, highlighting the importance of fostering such traits within academic settings to cultivate future entrepreneurs. Conversely, competitive aggressiveness, while theoretically posited as a potential influencer, did not demonstrate a significant impact on entrepreneurial intentions in this context. This suggests that while competitiveness is a valued trait in the entrepreneurial landscape, its direct influence on the entrepreneurial intentions of female undergraduates in Northwest Nigeria might be overshadowed by other factors, possibly cultural or socio-economic in nature.

Based on the study's findings, the study recommends that Federal Universities in Northwest Nigeria integrate proactiveness training into their curricula to foster entrepreneurial intentions among female undergraduates. This can be achieved by introducing courses and workshops that emphasize proactive thinking and action. Furthermore, while competitive aggressiveness was not a significant driver for entrepreneurial intentions, it's essential to strike a balance. Instead of solely focusing on competition, universities should promote collaboration and

teamwork among students. This approach not only nurtures entrepreneurial spirit but also ensures that students are well-equipped with a blend of skills to thrive in the business world.

Future Research

Further research could be to explore the role of cultural factors in shaping the entrepreneurial intentions of female undergraduates in Nigeria. Cultural factors, such as gender norms and expectations, may play a significant role in shaping women's attitudes and behaviours towards entrepreneurship.

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