

Nexus Between Entrepreneurial Mindset and Cybercrime Prevention Among Students in Selected Institutions in Kwara State, Nigeria

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ABSTRACT: This study examines the relationship between entrepreneurial mindset and cybercrime prevention among students in selected tertiary institutions in Kwara State, Nigeria. Drawing on the Theory of Planned Behaviour (Ajzen, 1991), the research investigates how students' ethical orientation, self-efficacy, and opportunity recognition influence cybercrime-preventive behaviour. A descriptive survey design was employed, collecting data from 238 valid responses out of 300 distributed questionnaires across the University of Ilorin, Kwara State Polytechnic, and the College of Education, Ilorin. Results indicate that students exhibit a moderately high entrepreneurial mindset ($M = 3.92$, $SD = 0.64$) and moderate cybercrime-prevention behaviour ($M = 3.76$, $SD = 0.71$). Correlation analysis revealed a strong positive relationship between entrepreneurial mindset and cybercrime prevention ($r = 0.621$, $p < 0.05$). Regression analysis further showed that ethical orientation ($\beta = 0.352$), self-efficacy ($\beta = 0.298$), and opportunity recognition ($\beta = 0.234$) significantly predict cybercrime-preventive behaviours, explaining 54.3% of the variance. The findings suggest that fostering an entrepreneurial mindset, particularly ethical reasoning and self-efficacy, can reduce students' likelihood of engaging in cybercrime. The study recommends integrating ethical entrepreneurship, digital citizenship, and experiential mentoring into tertiary curricula to promote responsible online conduct and sustainable innovation.

KEYWORDS: Entrepreneurial Mindset; Cybercrime Prevention; Self-Efficacy; Ethical Orientation; Opportunity Recognition; Tertiary Institutions; Kwara State; Students

I. INTRODUCTION

In Nigeria, youth unemployment and financial instability are still major socioeconomic problems that put a lot of strain on university students. Many students are forced to look into different avenues for achieving self-reliance and financial independence due to ongoing uncertainty and restricted access to reliable sources of income. As a result, Nigerian higher education institutions have placed a greater emphasis on entrepreneurship education as a strategic intervention meant to give students the knowledge, abilities, and behavioural competencies required for creativity, moral reasoning, and long-term self-sufficiency (Michael, Inyang, & Ojeka, 2024). Essential to Students attending universities in Nigeria continue to face significant socioeconomic challenges, including youth unemployment and unstable finances. Due to persistent uncertainty and limited access to stable sources of income, many students are compelled to investigate alternative paths to financial independence and self-reliance. In order to provide students with the skills, knowledge, and behavioural competencies necessary for creativity, moral reasoning, and long-term self-sufficiency, Nigerian higher education institutions have consequently increased their emphasis on entrepreneurship education (Michael, Inyang, & Ojeka, 2024).

The development of an entrepreneurial mindset, which includes opportunity recognition, self-efficacy, ethical orientation, creativity, and risk-taking, is the goal of this educational approach (Daspit et al., 2023).

These skills enable students to make morally sound decisions, recognize viable entrepreneurial opportunities, and responsibly navigate challenging socioeconomic, technological, and competitive environments. Concurrently, students' academic, social, and entrepreneurial engagement has changed due to the widespread use of digital technologies. These days, learning, communication, financial management, and entrepreneurial experimentation all depend heavily on digital platforms. However, students are now more vulnerable to cyberthreats like identity theft, phishing, online fraud, malware attacks, and other sophisticated cybercrimes due to their increased reliance on digital tools (Yauri & Abubakar, 2023). According to research, students' susceptibility to risky digital behaviour and unethical online practices is greatly increased by peer pressure, financial hardship, a lack of moral guidance, and a lack of instruction in digital ethics (Nasarawa & Onyekachukwu, 2024; Balogun, 2024).

Due to the combination of societal influence, digital accessibility, and financial strain, some students now view cybercrime as a feasible alternative source of income. This is especially alarming in Nigeria, where young people with digital skills are actively recruited into fraudulent operations by sophisticated cybercrime networks. One possible protective behavioural mechanism in this situation is the integration of digital ethics education with the development of an entrepreneurial attitude. Students are less likely to conduct cybercrime and more likely to participate in legal online activities if they have better levels of self-efficacy, opportunity recognition, ethical reasoning, and inventiveness. Cybercrime among university students is still on the rise, despite continuous institutional attempts to develop entrepreneurial skills. Economic pressures and the apparent accessibility of unlawful digital advantages make it more difficult for many students to make moral decisions, engage responsibly online, and uphold online moral norms (Yauri & Abubakar, 2023). The usefulness of entrepreneurship education in reducing unethical online activity is still poorly understood, despite the fact that it integrates ethical thinking and responsible opportunity utilization. Institutions lack a strong framework for mitigating recurrent digital misconduct due to the lack of empirical clarity on the relationship between entrepreneurial mindset and cybercrime-preventive behaviour. This compromises academic integrity, weakens institutional culture, and jeopardizes national cybersecurity initiatives.

The research currently in publication has looked at how entrepreneurship education affects students' creativity, ethical orientation, professional goals, and behavioural development (Michael et al., 2024; Daspit et al., 2023). Peer pressure, socioeconomic pressures, digital illiteracy, and psychological predispositions to unethical online behaviour have all received a lot of attention in cybercrime research (Yauri & Abubakar, 2023; Alfakoro & Emmanuel, 2025). These research streams have mostly developed independently, notwithstanding the importance of entrepreneurial competences in directing moral judgement and responsible behaviour. There is still a significant empirical gap: little is known about how the entrepreneurial mindset affects students' cybercrime-preventive behaviour in Nigerian higher education institutions, especially in areas like Kwara State that are quickly being digitalized. In order to develop evidence-based treatments that support ethical decision-making abilities, promote responsible digital activities, and bolster institutional and national cybersecurity initiatives, it is imperative to close this gap.

II. RELATED WORKS

According to Daspit et al. (2023), an entrepreneurial mentality is a collection of attitudes, abilities, and behaviours that help people identify opportunities, effectively manage risk, and generate value in the face of uncertainty. Students who possess these fundamental qualities ethical reasoning, self-efficacy, inventiveness, and opportunity alertness are better able to pursue legal endeavours and steer clear of illegal ones (Michael et al., 2024; Iwelumor et al., 2025). Research conducted in Nigeria shows that students who have strong ethical reasoning and higher entrepreneurial self-efficacy are less likely to commit cyber-enabled fraud, underscoring the protective role of entrepreneurial mindset constructs (Okpako et al., 2023; Alfakoro & Emmanuel, 2025). Evidence from other countries supports this trend: in Ghana, students who

were more ethically grounded and aware of opportunities reported less involvement in cybercrime (Addo & Mensah, 2024), while in Kenya, exposure to digital safety and structured entrepreneurship programs was linked to less involvement in cybercrime (Munyua et al., 2023). These studies highlight opportunity awareness and ethical reasoning as crucial stand-ins for actions that prevent cybercrime.

Cybercrime includes illicit activities carried out through digital platforms, such as identity theft, phishing, hacking, and online fraud (Yauri & Abubakar, 2023). Preventive behaviour refers to proactive tactics that lessen students' susceptibility to online hazards, such as self-discipline, ethical judgement, and knowledge of cyber-ethics principles (Nasarawa & Onyekachukwu, 2024; Ainabor & Akuza, 2025). Cyber-citizenship skills and digital literacy greatly lower young people's vulnerability to cybercrime. According to research by Althibyani and Al Zahrani (2023), university students who possessed sophisticated digital-citizenship skills such as understanding digital laws, digital security, digital communication, rights, duties, and digital culture showed significantly less involvement in cyber-enabled offences. Students' cyber-awareness and protective behaviour were improved by European initiatives that used interactive cybersecurity curricula (films, tests, games, real-world case scenarios) (SpringerLink, 2024). Furthermore, the Empowering Children Online framework (2025) emphasizes that methodically imparted digital citizenship skills promote responsible online behaviour, highlighting how digital ethics serve as a stand-in for preventive behaviour (SpringerLink, 2025). These conclusions are supported by evidence from the African continent. Incorporating cyber-ethics and safe-use practices into curriculum, for example, greatly lowers teenage vulnerability to online crimes, according to a South African review (Uesit et al., 2025). According to research conducted in Nigeria, pupils are more vulnerable to cyber-enabled fraud due to inadequacies in digital literacy and cybersecurity education (Okeke & Onyekachukwu, 2024; Alfakoro & Emmanuel, 2025). The efficacy of dual-focus treatments that combine training in digital ethics with entrepreneurial education is supported by empirical data. By offering feasible economic options and encouraging moral decision-making, youth empowerment initiatives in Nigeria that incorporate skill development, entrepreneurial training, and ethical mentoring lower cybercrime engagement (Iwelumor et al., 2025; Okpako et al., 2023). International research from the United States and Europe confirms that integrating cybersecurity education with entrepreneurship skill development improves opportunity recognition and lowers involvement in cybercrime (SpringerLink, 2025; Link.springer.com, 2023).

These dual-focus strategies show how the development of an entrepreneurial attitude and digital literacy are mutually reinforcing in influencing conduct that prevents cybercrime. When socioeconomic factors, peer pressure, and skill gaps are addressed together, the results are stronger than when they are addressed separately. A strong conceptual foundation for comprehending students' cybercrime-preventive behaviour is offered by the Theory of Planned Behaviour (Ajzen, 1991). According to this model, students' entrepreneurial self-efficacy and digital literacy competence are represented by perceived behavioural control, peer and institutional influences on responsible digital conduct are captured by subjective norms, and attitudes reflect the ethical reasoning ingrained in the entrepreneurial mindset. Dual-focus interventions reduce students' vulnerability to cybercrime by strengthening attitudes, reinforcing normative guidance, and improving perceived control, as demonstrated by mapping empirical data onto TPB. Students who have a stronger ethical foundation, are more capable of starting their own business, and possess good digital citizenship skills are less likely to commit cybercrime, according to the literature. In socioeconomically restricted environments like Nigeria, dual-focus educational programs are very successful. However, holes still exist. Longitudinal research evaluating the long-term effects of these interventions on cybercrime-preventive conduct is rare, and there is little empirical evaluation of dual-focus programs at postsecondary institutions. In order to develop evidence-based tactics that improve moral decision-making, encourage responsible digital habits, and fortify institutional and national cybersecurity frameworks, these gaps must be filled.

III. METHODOLOGY

A descriptive survey design was adopted to collect quantitative data from three tertiary institutions: University of Ilorin, Kwara State Polytechnic, and College of Education, Ilorin. The study targeted students enrolled in entrepreneurship-related programs. A stratified random sampling method ensured representation across institutions, yielding 300 participants. The distribution was: Kwara State Polytechnic (140), University of Ilorin (100), and College of Education (60). Data were collected using the Entrepreneurial Mindset and Cybercrime Prevention Questionnaire (EMCPQ), which included:

- (a). **Section A:** Demographic data (age, gender, institution, academic level).
- (b). **Section B:** Entrepreneurial mindset (ethical orientation, opportunity recognition, self-efficacy; adapted from Daspit et al., 2023).
- (c). **Section C:** Cybercrime awareness and preventive behaviours (adapted from Nasarawa & Onyekachukwu, 2024).

Responses were rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). Content validity was ensured by three academics specializing in cybersecurity and entrepreneurship. Pilot testing with 30 students produced Cronbach’s alpha ≥ 0.70 for all subscales. Research Objectives and Hypotheses are as follows:

- (a). Assess students’ levels of entrepreneurial mindset, including opportunity recognition, self-efficacy, ethical orientation, and creativity.
- (b). Determine the prevalence and nature of cybercrime involvement or exposure among students.
- (c). Examine the relationship between entrepreneurial mindset and cybercrime prevention, identifying the key predictors of preventive behaviour.

- H₀₁: Students’ entrepreneurial mindset is significantly associated with cybercrime-preventive behaviour.
- H₀₂: Students with higher ethical orientation and self-efficacy are less likely to engage in cybercrime.
- H₀₃: Entrepreneurial mindset significantly predicts cybercrime-preventive behaviour.

Questionnaires were administered both physically and online via Google Forms. SPSS v26 was used for descriptive and inferential statistics, including mean, standard deviation, Pearson correlation, and multiple regression. Hypotheses were tested at $\alpha = 0.05$.

IV. RESULTS AND DISCUSSION

Out of 300 questionnaires distributed across three tertiary institutions, 238 were valid, yielding a 79.3% response rate, which is considered adequate for social science research (Baruch & Holtom, 2008). Table 4.1 shows the distribution of responses by institution. Kwara State Polytechnic had the highest response (50.4%), followed by the College of Education, Ilorin (28.6%), and the University of Ilorin (21.0%). The overall sample is therefore sufficiently representative for examining entrepreneurial mindset and cybercrime-preventive behaviours among students.

Table 1: Response Rate

Institution	Distributed	Returned	Returned
Kwara State polytechnic	140	120	50.4
College of Education, Ilorin	160	68	28.6
University of Ilorin	100	50	21.0
Total	300	238	100

Source: Field Survey (2025).

A. Demographics

The demographic characteristics of respondents are presented in Table 4.2. The sample comprised 136 males (57.1%) and 102 females (42.9%), indicating a reasonably balanced gender representation. Age distribution shows that most respondents were aged 21–25 years (49.6%), followed by 26+ (26.9%) and 16–20 (23.5%). Academic levels ranged from ND/NCE 1 (26.9%), ND/NCE 2 (34.5%), to 300–400 levels (38.6%), reflecting a diverse cohort of students at different stages of their tertiary education. This youthful and technology-oriented sample aligns with prior research indicating that young adults’ engagement in entrepreneurship reduces cybercrime propensity (Nwosu & Chima, 2024).

Table 2: Demographics

Variable	Category	Frequency	Percentage (%)
Gender	Male	136	57.1
	Female	102	42.9
Age (Years)	16–20	56	23.5
	21–25	118	49.6
	26+	64	26.9
Academic Level	ND/NCE 1	64	26.9
	ND/NCE 2	82	34.5
	300–400 Level	92	38.6

The sample reflects a youthful, technology-savvy population, consistent with prior studies showing youth entrepreneurship reduces cybercrime propensity (Nwosu & Chima, 2024).

RESEARCH QUESTION ONE

Entrepreneurial Mindset

The mean scores and standard deviations of entrepreneurial mindset across institutions are presented in Table 4.3. Kwara State Polytechnic students reported the highest entrepreneurial orientation (M = 4.01, SD = 0.58), likely reflecting a practical, career-focused curriculum. College of Education (M = 3.88, SD = 0.61) and University of Ilorin (M = 3.69, SD = 0.68) scored moderately, with an overall mean of 3.92 (SD = 0.64), indicating a moderately high entrepreneurial mindset among students.

Table 3: Entrepreneurial Mindset

Institution	Mean	SD	Interpretation
Kwara State Polytechnic	4.01	0.58	High
College of Education	3.88	0.61	Moderate
University of Ilorin	3.69	0.68	Moderate
Overall	3.92	0.64	Moderately High

Kwara State Polytechnic students exhibited the highest entrepreneurial orientation, likely due to a practical, career-focused curriculum.

RESEARCH QUESTION TWO

Cybercrime Prevention Behaviour

Presents the mean scores of students’ cybercrime-preventive behaviour. Kwara State Polytechnic again recorded the highest mean (M = 3.88, SD = 0.65), while College of Education (M = 3.71, SD = 0.74) and University of Ilorin (M = 3.62, SD = 0.77) showed moderate levels. The overall mean of 3.76 (SD = 0.71) indicates that students adopt preventive behaviours to a moderate extent.

Table 4: Cybercrime Prevention Behaviour

Institution	Me	SD	Interpretation
Kwara State Polytechnic College of Education University of Ilorin	3.88	0.65	Moderate–High
Overall	3.76	0.71	Moderate

The results suggest that students across institutions demonstrate positive entrepreneurial orientation, with ethical reasoning, self-efficacy, creativity, and opportunity recognition being moderately to highly developed. Institutional differences may be attributed to variations in curriculum emphasis, exposure to entrepreneurship programs, and practical learning opportunities.

RESEARCH QUESTION THREE

Table 5: Relationship Between Entrepreneurial Mindset and Cybercrime Prevention

Variable	N	r	p-value	Decision
Entrepreneurial Mindset & Cybercrime Prevention	238	0.621	0.000	Significant

A Pearson correlation analysis revealed a strong positive relationship between entrepreneurial mindset and cybercrime-preventive behaviour ($r = 0.621, p < 0.001, N = 238$), indicating that students with higher ethical reasoning, self-efficacy, and opportunity recognition are more likely to adopt preventive measures. This aligns with the Theory of Planned Behaviour (Ajzen, 1991), which posits that attitudes, subjective norms, and perceived behavioural control influence behavioural intention.

Regression Analysis

Multiple regression was conducted to determine the predictive power of entrepreneurial mindset components on cybercrime-preventive behaviour. Results are presented here.

Table 6: Relationship

Predictor Variables	β	t	p-value	Remark
Opportunity Recognition	0.234	3.19	0.002	Significant
Self-Efficacy	0.298	4.12	0.000	Significant
Ethical Orientation	0.352	5.08	0.000	Significant
$R^2 = 0.543; F(3,234) = 46.45, p < 0.05$				

Ethical orientation emerged as the strongest predictor, followed by self-efficacy and opportunity recognition. Collectively, these variables explain 54.3% of the variance in cybercrime-preventive behaviour, indicating substantial predictive power. This underscores the importance of ethical reasoning and self-efficacy in guiding students toward responsible digital behaviour.

Table 7: Test of Hypotheses

Hypothesis	Statement	Result	Decision
H ₁	Entrepreneurial mindset is significantly related to cybercrime prevention	$r = 0.621, p < 0.05$	Accepted
H ₂	Higher self-efficacy and ethical orientation reduce cybercrime engagement	$\beta = 0.298, 0.352, p < 0.05$	Accepted
H ₃	Entrepreneurial mindset predicts cybercrime-preventive behaviour'	$R^2 = 0.543, p < 0.05$	Accepted

The results confirm that an entrepreneurial mindset, particularly ethical orientation and self-efficacy, significantly influences students' cybercrime-preventive behaviours. These findings highlight the need for tertiary institutions to integrate ethics-driven entrepreneurship education with digital literacy initiatives to foster responsible online conduct and reduce susceptibility to cybercrime.

V. CONCLUSION

The findings affirm a strong link between entrepreneurial mindset and cybercrime-preventive behaviour among tertiary students in Kwara State. Ethical orientation, self-efficacy, and opportunity recognition emerged as meaningful predictors of responsible digital conduct, indicating that students who possess stronger entrepreneurial values are less inclined to engage in cybercrime. These results underscore the relevance of integrating innovation-driven learning and ethical entrepreneurship within higher education, as such approaches not only strengthen students' cognitive and moral capacities but also create viable pathways for lawful digital enterprise. Strengthening digital citizenship within academic environments further reinforces preventive behaviour by shaping students' attitudes, perceived behavioural control, and readiness for ethical participation in the digital economy. As institutions continue to confront rising cybercrime among youths, promoting entrepreneurial thinking becomes a strategic and educationally grounded mechanism for both behavioural regulation and sustainable skill development.

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