

ARTIFICIAL INTELLIGENCE LITERACY AND DIGITAL RESILIENCE AS PREDICTORS OF BUSINESS EDUCATION STUDENTS' CYBERPRENEURIAL INTENTION IN EDO STATE

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Abstract

The rising graduate unemployment in Nigeria has exacerbated the need to train business education students' in digital competencies that could drive job creation. The main purpose of the study was to evaluate the extent to which artificial intelligence literacy and digital resilience predict business education students' cyberpreneurial intention in Edo State adopting correlational survey research design. Three research questions were addressed, while three hypotheses were tested at .05 level of significance. A total of 481 business education students from Ambrose Alli University, Ekpoma and the University of Benin constituted the study's population. The "Artificial Intelligence Literacy, Digital Resilience, and Cyberpreneurial Intention Questionnaire (AILDRASIQ)" was utilized in gathering the data; and was validated by two experts. The reliability coefficients obtained by Cronbach's alpha were .88 for artificial intelligence literacy, .82 for digital resilience, and .85 for cyberpreneurial intention after it was given to 30 business education students' at Delta State University, Abraka. Simple linear regression and multiple regression were utilized to assess the data. The results demonstrated that artificial intelligence literacy and digital resilience individually and jointly predicted business education students' cyberpreneurial intention in Edo State. It consequently means that conscious effort must be made to guarantee that the curriculum is reviewed to include AI literacy, digital business tools, and resilience-building digital learning experiences to increase students' readiness for cyberpreneurship. This study has addressed a research gap by exploring the hitherto underexplored link among AI literacy, digital resilience, and cyberpreneurial intention. Based on the results, it was recommended that students be introduced to trending AI tools that can facilitate digital business operations.

Keywords: Artificial Intelligence Literacy, Business Education, Cyberpreneurial Intention,
Digital Resilience

Introduction

The digital economy has brought about new techniques in recognizing and solving societal and economic challenges. One of the difficulties being faced in Nigeria is the increasing degree of unemployment that has further produced instability, poverty, and uncertainty in the society (Ediagbonya, 2022). This was what led to the introduction of Entrepreneurship education in the curriculum of higher institutions in Nigeria in 2004. The programme was deliberately developed to expose the undergraduates to alternate sources of income by preparing them with the necessary entrepreneurial skills needed for business start-up. This approach was purposefully meant to shift emphasis from paid work to self-employment.

The business landscape has shifted due to the increasing trend of automation and digital transformation; traditional entrepreneurship is no longer the only focus (Ediagbonya et al., 2024a; Ediagbonya et al., 2024b; Ediagbonya et al., 2024c; Ediagbonya et al., 2026). In other words, entrepreneurs are increasingly focused on using the internet's resources for their business endeavors. As a result, cyberpreneurship is becoming more and more important. Digital entrepreneurship and cyberpreneurship are frequently used interchangeably. Cyberpreneurship, according to Bensaid and Azdimousa (2021), is the process of creating new businesses with creative concepts that use an electronic platform in data networks to provide goods and/or services based only on electronic value

creation. Cyberpreneurship, according to Mohammed et al. (2023), is the process of influencing changes in the competitive environment through information and communication technologies, particularly digital media. In the current digital era, students are accustomed to using technology and may find it easy to pursue this kind of business venture.

Cyberpreneurial intention, according to Mir et al. (2023), is a person's deliberate desire to pursue an entrepreneurial career made possible by information and communication technology (ICT), particularly the intention to launch a new company using digital technology tools like the internet, mobile devices, and related technologies. Similarly, cyberpreneurial intention is defined by Vu et al. (2024) as a proactive commitment to navigate the digital environment to pursue innovative business projects and endeavors, which goes beyond a simple entrepreneurial tendency. Undergraduate students' intentions to pursue cyberpreneurship are frequently impacted by a number of elements, including digital resilience (DR) and artificial intelligence (AI) literacy.

Artificial intelligence (AI) is the term used to describe systems that can respond in ways similar to intelligent human behavior, such as understanding complex circumstances, simulating cognitive processes, reasoning, adapting, learning, and gaining information to solve problems. In contrast to the natural intelligence exhibited by humans and animals, the author emphasized that artificial intelligence (AI) is fundamentally a sort of intelligence manifested by computers. The information necessary to comprehend, the operational skills necessary to interact with, and the awareness necessary to critically assess AI systems, including its ethical, sociological, and practical ramifications, are together referred to as artificial intelligence literacy (Biagini, 2025).

Similarly, Long and Magerko (2020) defined AI literacy as having the skills necessary to assess AI technology critically, interact and cooperate with AI successfully, and use AI as a tool at home, at work, and online. In this digital economy, AI literacy has become an essential tool. Possessing AI literacy will boost people's confidence and encourage them to pursue cyberpreneurship. AI literacy is viewed as a benefit when starting a cyberpreneurial endeavour, in keeping with the human capital idea. Therefore, in order to effectively find and establish online business possibilities, entrepreneurs or would-be entrepreneurs must work toward becoming AI literate. AI literacy is viewed as a benefit when starting a cyberpreneurial endeavor, in keeping with the human capital idea. It takes a lot of digital resilience to maintain online engagement while conducting business.

The ability to absorb significant shocks, adjust to disturbances, and change into a new stable state where organizations are better equipped to withstand future shocks is known as "digital resilience" (Boh et al, 2023). Tim and Leidner (2023) defined digital resilience (DR) as the ability of people, organizations, and communities to recover from external shocks through the development, implementation, and utilization of information systems. Similarly, DR is defined by Lestari et al. (2025) as people's ability to alter their mental and behavioral states in reaction to the dangers that digital technologies present to society. The authors emphasized that DR includes essential elements including digital identity, digital assistance, and digital health. Digital entrepreneurial resilience, according to Berman et al. (2026), is a process wherein digital start-ups use digital technologies to cultivate entrepreneurial qualities like agility and adaptability in order to overcome hardship and guarantee survival and expansion.

People who comprehend these concepts—AI literacy and digital resilience—will be more equipped to start cyberpreneurial endeavors. Since digital technologies play a major role in today's economy, entrepreneurs' ability to use the internet and artificial intelligence (AI) to identify and maintain business prospects will be crucial to their survival. Previous research has mostly concentrated on traditional entrepreneurship, which is out of step with the current digital economy. Most studies have emphasized the association between resilience and cyberpreneurial intention (Hossain et al, 2023; Zahra, 2025; Balgiu et al, 2025; Aliffirmansyah & Nikmah, 2025; Han et al., 2026; Tantawy et al., 2026). Studies have also shown that there is a significant relationship between AI literacy and cyberpreneurial intention (Duong, 2024; Duong, 2025; Hajizadeh & Hassani, 2025; Tang et al., 2025; Duong et al., 2025; Duong et al., 2026). Despite the studies that have been done in this field, there is still a dearth of empirical studies. Most of the studies were conducted in the Western world, and the variable, digital resilience, is yet to gain sufficient attention. Most studies focused on

resilience in general without emphasizing digital resilience, which is fundamental in understanding the digital landscape. Again, none of the reviewed studies have looked at the predictive roles of AI literacy and digital resilience in explaining Business Education students' cyberpreneurial intention in Edo State. This gap has been filled in this study by investigating the extent to which AI literacy and digital resilience predict Business Education students' cyberpreneurial intention in Edo State.

Purpose of the Study

The main purpose of the study was to ascertain the extent to which AI literacy and digital resilience predict Business Education students' cyberpreneurial intention in Edo State. Specifically, the study sought to:

1. Determine if AI literacy is a significant predictor of Business Education students' cyberpreneurial intention in Edo State; and
2. Ascertain if digital resilience is a significant predictor of Business Education students' cyberpreneurial intention in Edo State.

Theoretical Framework

The theoretical framework was hinged on the Social Cognitive Career Theory (SCCT). The SCCT was propounded by Lent et al. (1994), and it posits that career behavior is shaped by the interaction of personal beliefs, expected outcomes, and environmental factors. Self-efficacy, result expectations, interests, goals (intentions), and contextual circumstances are the theory's core pillars. Self-efficacy is the conviction that one can complete a task. To put it simply, "outcome expectations" are beliefs about how that task will turn out. The preferences that arise from self-efficacy and anticipated results are related to interest. In the theory, "goals" refers to the aims. That is, the choices to follow a specific course. The supports and obstacles that affect behavior are referred to as contextual factors.

In the context of this study, artificial intelligence (AI) is a tool that, when used by an individual, can boost their sense of self-efficacy, which can encourage them to start a digital business. In other words, the AI abilities that Business Education students possess give them a certain amount of confidence, which encourages them to pursue online business prospects. A person's ability to avoid the dangers and vices of conducting business online is known as their "digital resilience." People with this type of disposition won't want to give up running internet enterprises. By this theory, Business Education students are likely to venture into cyberepreneurship as a result of their digital resilience and AI literacy skills they possessed. This theory is best in explaining the interrelationships that exist among AI literacy, DR, and cyberpreneurial intention of Business Education students in Edo State.

Methods

The study examined the relationship between the independent and dependent variables using a cross-sectional survey research design. Given its focus on determining the relationship between the independent variables (Artificial Intelligence literacy and Digital resilience) and dependent variable (cyberpreneurial intention), this design was deemed appropriate for the study.

The population was made up of 481 Business Education students from the two public universities offering Business Education in Edo State. The students were from 200 level to 400 level in the 2025/2026 academic session. The institutions are: University of Benin, Benin City and Ambrose Alli University, Ekpoma. The entire population was used in the study since the population was a management size.

Structured questionnaires that were modified from earlier scales served as the study's instruments. The AI literacy scale was adapted from Aktay et al. (2025), the digital resilience scale was adapted from Suranata et al. (2024), while the cyberpreneurial intention scale was adapted from Wibowo et al. (2023).

Two experts in the field of business education subjected the instrument to validity. The instrument's reliability was assessed using the Cronbach Alpha. 30 business education students were

given the instrument. The various scales yielded the following reliability coefficients: AI literacy (.79), digital resilience (.86), and cyberpreneurial intention (.89).

A total of 328 instruments were returned after the researcher used a Google Form to administer the instruments to the respondents. The Statistical Packages for Social Sciences (SPSS) Version 26.0 was used to analyze the collected data. The data was analyzed using simple regression analysis.

Results

The results of the data analysis are presented in this section with respect to the hypotheses testing of the study variables.

Hypothesis 1: AI literacy is not a significant predictor of Business Education students' cyberpreneurial intention in Edo State.

Table 1
AI Literacy Predicting Cyberpreneurial Intention

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	9.315	1.457	6.395	.000
	AI literacy	.149	.028	5.340	.000

a. Dependent Variable: Cyberpreneurial Intention

Note: Adjusted $R^2 = .084$, Df = 1, 300, SE = .295, F = 28.518, $P < .05$, $t = 5.340$, $\beta = .295$

Table 1 reveals that AI literacy ($F(1, 300) = 28.518$, SE = .295, $\beta = .295$, $t = 5.340$) had a significant positive influence on cyberpreneurial intention. The Adjusted R-square (.084) reveals that 8.4% of the variance in cyberpreneurial intention is influenced by AI literacy. Therefore, hypothesis 1 is rejected in the study. That is, AI literacy is a significant predictor of business education students' cyberpreneurial intention in Edo State.

Hypothesis 2: Digital resilience is not a significant predictor of Business Education students' cyberpreneurial intention in Edo State.

Table 2
Digital resilience predicting cyberpreneurial intention

Model	Unstandardized Coefficients		Standardized Coefficients	Sig.
	B	Std. Error	Beta	
1	(Constant)	4.376	1.385	3.160
	Digital resilience	.366	.040	.470

a. Dependent Variable: Cyberpreneurial Intention

Note: Adjusted $R^2 = .218$, Df = 1, 300, SE = .040, F = 84.903, $P < .05$, $t = 9.214$, $\beta = .470$

Table 2 reveals that digital resilience ($F(1, 300) = 84.903$, SE = .040, $\beta = .470$, $t = 9.214$) had a significant positive influence on cyberpreneurial intention. The Adjusted R-square (.218) reveals that 21.8% of the variance in cyberpreneurial intention is influenced by digital resilience. Therefore, hypothesis 2 is rejected in the study. That is, digital resilience is a significant predictor of cyberpreneurial intention among business education students in Edo State.

Discussion of Findings

The analysis conducted with respect to the first hypothesis revealed that AI literacy is a significant predictor of business education students' cyberpreneurial intention in Edo State. This means that possessing AI literacy skills tends to make students confident and motivated to venture into cyberpreneurship. It therefore implies that when individuals know AI and its utilization in

entrepreneurial activities, they will be more willing to pursue digital business enterprise. This finding corroborates the findings by Duong (2024), Duong (2025), Hajizadeh and Hassani (2025), Tang et al. (2025), Duong et al. (2025), Duong et al. (2026) who found that AI literacy has significant relationship with cyberpreneurial intention. However, this finding contradicts the findings by Duong (2025) and Alkhalaileh and Qasim (2026) who found insignificant relationship between AI literacy and cyberpreneurial intention.

The findings from the second hypothesis revealed that digital resilience is a significant predictor of business education students' cyberpreneurial intention in Edo State. This finding shows that individuals that possess this digital resilience trait are able to overcome all the challenges and vices associated with internet usage and still press on in pursuing digital businesses. This finding corroborates the findings by Hossain et al. (2023), Zahra (2025), Balgiu et al. (2025) Aliffirmansyah and Nikmah (2025), Han et al. (2026), and Tantawy et al. (2026) who found that digital resilience is a significant predictor of cyberpreneurial intention.

Conclusion and Recommendations

The findings indicate that AI literacy and digital resilience are both significant predictors of business education students' cyberpreneurial intention in Edo State. This finding underscores the need for an urgent curriculum review to accommodate both AI literacy and digital resilience, as these topics are highly useful in equipping learners with the skills needed to function effectively in this current digital economy. This will also inform the need for lecturers and instructors to be retrained for them to be proficient in knowledge delivery. This finding makes a novel contribution to the literature in cyberpreneurship and business education by utilizing Social Cognitive Career Theory (SCCT) in explaining how personal factors and contextual factors are capable of propelling individuals to venture into cyberpreneurial activities in Edo State.

Based on the study's findings, the following recommendations are made:

1. the curriculum of entrepreneurship education should be reviewed with a view to incorporating topics on cyberpreneurship;
2. the students should be exposed to more Artificial Intelligence tools that are capable of supporting businesses;
3. regular retraining exercise should be conducted from time to time to assist those involved in the teaching of cyberpreneurship courses; and
4. the students should be carefully taught on how to build digital resilience personality.

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