

Enhancing Entrepreneurial Success through Digital Citizenship in Delta State, Nigeria

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Abstract

The study focused on enhancing entrepreneurial success through digital citizenship in Delta State, Nigeria. Two research questions guided the study, along with two hypotheses. The study adopted a descriptive survey research method. The population was 100 registered small and medium-scale ICT enterprises in Delta State. Data were collected using a structured questionnaire developed by the researcher, which three experts in education validated. The application of Cronbach's Alpha to the collected data yielded coefficient values of 0.86 and 0.84 for clusters B1 and B2, respectively, with an overall coefficient value of 0.85. The mean value was used to answer the research questions, while the standard deviation assessed the homogeneity of the respondents' ratings. A t-test was employed to test the hypotheses. Findings revealed that digital literacy has a significant impact on entrepreneurial success in Delta State. Additionally, it was found that the years of experience of SME managers did not affect their opinions on the extent to which digital citizenship enhances entrepreneurial success in Delta State. Based on the study's findings, it was recommended, among other things, that the Small and Medium-Scale Enterprise Development Agency (SMEDAN) should organise digital citizenship education seminars, workshops, and conferences to improve entrepreneurs' digital literacy and commercial utilisation skills.

Keywords: Entrepreneurial Success, Digital Citizenship, Digital Commerce, Digital Literacy, Delta State.

Introduction

Nigeria is a nation rich in both human and material resources. With a population of over 200 million, a substantial proportion of this demographic consists of young people. Nigeria boasts the world's largest youth population, with a median age of just 18.1 years. Approximately 70% of the population is under the age of 30, and 42% are younger than 15 (Alliances for Africa, 2022). This demographic trend is particularly pronounced in Delta State, where the levels of poverty are alarmingly high, with 70% of the youth living in impoverished conditions. The youth unemployment rate for those aged 15-24 is 40%, significantly higher than the national average of 14%. The challenge of youth unemployment and underemployment has emerged as a significant source of conflict, presenting a substantial obstacle to peace and regional development (International Youth Foundation, 2011). Over the years, numerous administrations, since the state's creation on

27 August 1991, have implemented various developmental and reform programs to enhance overall progress and improve living conditions for the population. Unfortunately, these initiatives have not delivered the desired outcomes, partially due to factors related to limitations in human resource development and utilisation. Many young people appear to lack the necessary entrepreneurial skills and mindset for achieving business success, resulting in a reliance on public jobs or unemployment.

According to Sulaiman, Surajo and Matinja (2020), entrepreneurship involves assuming the risk of beginning and maintaining a firm. Suleiman and Magaji (2020) averred that entrepreneurship is an individual's skill and willingness to develop and build something that is almost non-existent. According to the Organisation for Economic Co-operation and Development (OECD), as cited in Edwige (2013), entrepreneurship is a process in which entrepreneurs develop and build businesses to deliver new products or services, or to add value to existing ones. According to them, the attributes of finding opportunities, taking risks beyond security, and being determined to carry an idea through to completion combine to form a unique personality trait that pervades entrepreneurs. Entrepreneurship is generally associated with economic growth, market expansion and innovation. The amount of investment and availability to finance, as well as the entrepreneur's experience, are all factors that influence entrepreneurial success (Edwige, 2013). In increasingly unpredictable and dynamic economic settings, innovation generally leads to entrepreneurs becoming more creative, experimenting with the development of new processes, services, and products, and giving rise to new business models that allow entrepreneurial ventures to expand and enhance overall competitiveness (Mohsen, Saeed, Raza, Omar & Muffatto, 2021; Alderete, 2017).

Okpala (2025) stated that years of entrepreneurial experience significantly enhance an individual's ability to succeed in the evolving digital business landscape. Over time, entrepreneurs acquire nuanced insights into consumer behaviour, digital risk management, and adaptive market strategies—skills further sharpened by the responsible and strategic use of technology. This experiential maturity enables them to effectively harness digital tools for innovation, e-commerce, and global outreach, while maintaining ethical standards in digital interactions (Imiren Lassalle, Mwaura & Nicolopoulou, 2024). Moreover, such individuals tend to demonstrate higher levels of digital literacy, security consciousness, and ethical online behaviour, core digital citizenship tenets vital for sustainable entrepreneurial ventures in the digital age (Ananto, 2022). These experiences shape how entrepreneurs interact with digital platforms and influence how they embed digital values into their organisational culture, thus laying the foundation for a more in-depth exploration of digital citizenship and its implications for entrepreneurial practice.

Digital citizenship encompasses a set of standards and a responsible attitude toward the use of digital tools. Digital citizenship is also described as the ability of citizens to use digital technologies and behave appropriately in diverse digital contexts (Searson, Hancock, Soheil, & Shepherd, 2015). Acquiring the ability to navigate and survive in an increasingly complex, digitally mediated environment is what digital citizenship entails. Digital

citizenship involves developing a mindset that enables digital users to utilise technology effectively and appropriately. Another definition of digital citizenship is controlling and monitoring technology-related activity while considering ethical ideals, norms, culture, and security (Manzuoli, Sánchez & Bedoya, 2019).

Digital citizens, according to Isman and Gungoren (2014), are people who utilise technology efficiently and professionally. Individuals who utilise information technology to communicate with society, politics, and even the government are digital citizens. A digital citizen, according to Nor Aslamiah (2015), is someone who utilises the internet on a regular and adequate basis. A digital citizen must possess several qualities, including the ability to comprehend ethical and moral issues that arise from the use of technology and to act ethically and morally; to advocate for the safe, ethical, and responsible use of information and technology; to use technology in a way that fosters collaboration, learning, and productivity; to show personal responsibility for lifelong learning, and to show leadership in the area of digital citizenship (Aytekm & Ozlem, 2014). The researcher will examine two critical elements of digital citizenship for this study: digital literacy and digital commerce.

Digital literacy is significantly transforming organisational structures, work processes, and the skill sets required in the workplace. It also reshaped our expectations of business owners (Ojemaogha, 2019). Digital literacy involves understanding information in various formats and determining how to utilise it safely and effectively. This study defines digital literacy as the use of e-business technology to identify and leverage business opportunities for enhanced entrepreneurial success (Ojeomogha, 2014). Similarly, digital commerce refers to the electronic buying and selling of goods, emphasising the tools and safeguards designed to assist individuals in buying, selling, banking, or managing finances within the digital landscape (Ribble, 2021). Nevertheless, the extent to which these aspects of digital citizenship contribute to entrepreneurial success has not yet been empirically validated. The researcher aims to explore how digital citizenship enhances entrepreneurial success in Delta State.

Statement of the Problem

Revolutions in technology have continued to influence the way business operations are conducted. This change has increased the need for business enterprises to adopt innovative ways of attracting customers and becoming competitive. The knowledge of technology appears to be an added advantage. Unfortunately, entrepreneurs and owners of small to medium-sized enterprises often struggle with integrating technology into their business operations. It has been suggested that the knowledge of ICT could impact the entrepreneurial success of businesses. However, this assertion has not been empirically proven to be true.

Purpose of the Study

The study's primary purpose was to determine the extent to which digital citizenship enhances entrepreneurial success in Delta State. Specifically, the study sought to:

1. Investigated the extent to which digital literacy enhances entrepreneurial success in Delta State.
2. Investigated the extent to which digital commerce enhances entrepreneurial success in Delta State.

Research Questions

The following research questions guided the study:

1. To what extent does digital literacy enhance entrepreneurial success in Delta State?
2. To what extent does digital commerce enhance entrepreneurial success in Delta State?

Hypotheses

The following hypotheses were tested at the .05 level of significance:

1. There is no significant difference in the mean ratings of experienced (above 10 years) and less experienced (below 10 years) SME managers regarding the extent to which digital literacy enhances entrepreneurial success in Delta State.
2. There is no significant difference in the mean ratings of experienced (above 10 years) and less experienced (below 10 years) SME managers regarding the extent to which digital commerce enhances entrepreneurial success in Delta State.

Methodology

The study adopted the descriptive survey research design. It was conducted in Delta State, located in the southern part of Nigeria's South-South region. The population of the Study comprised 100 registered small and medium-scale ICT enterprises in Delta State. The data collection instrument was a structured questionnaire developed by the researcher. The instrument is titled "Question of Enhancing Entrepreneurial Success through Digital Citizenship" (QEESDC). The instrument consists of two sections, A and B. Section A contains one item that elicits information on the years of experience of ICT enterprise managers. Section B contains 16 items, divided into two clusters. Section B1 contains eight items on the Extent Digital Literacy Enhances Entrepreneurial Success (EDLEE). Section B2 contains eight items on the Extent Digital Commerce Enhances Entrepreneurial Success (EDCEES). The instrument was structured on a 4-point Likert-type rating scale, ranging from Very High Extent (VHE) to Very Low Extent (VLE), with intermediate categories of High Extent (HE) and Low Extent (LE). The instrument was validated by three experts in the School of Business Education, Federal College of Education (Technical), Asaba. The instrument was pilot-tested on 10 business educators from Awka, Anambra State. The application of Cronbach's Alpha to the collected data yielded coefficient values of 0.86 and

0.84 for clusters B1 and B2, respectively, with an overall coefficient value of 0.85. This means the instrument is reliable, as it exceeds the reliability value of 0.70 (Nworgu, 2015). The researchers administered the questionnaire by sending copies via email and WhatsApp messages to SME managers in cases where it was difficult to administer the instrument electronically. An appointment was made, and the instrument was administered on the spot and retrieved. Of the 100 questionnaires administered, 92 were returned and used for data analysis in the study. This amounted to a 92 per cent questionnaire return rate. The mean value was used to answer the research questions, while the standard deviation was used to ascertain the homogeneity or otherwise of the respondents' ratings. In analysing the mean value, any item with a mean rating above 2.50 was regarded as high extent, while any item below 2.50 was regarded as low extent. For the hypothesis, a t-test was used to test the hypothesis at a 0.05 level of significance. Meanwhile, a null hypothesis was rejected where the P-value is less than the stipulated significance level (05). Inclusively, the hypothesis is accepted if the p-value is greater than or equal to the stipulated significance level (05).

Results

Research Question One

To what extent does digital literacy enhance entrepreneurial success in Delta State?

Table 1: Respondents' Mean Rating on the Extent Digital Literacy Enhances Entrepreneurial Success (N=92)

S/N	Item Description	Mean	SD	Remarks
1.	Ability to type with the computer keyboard	3.28	.87	High Extent
2.	Ability to store documents on the computer	3.32	.92	High Extent
3.	Ability to retrieve files from the computer	3.23	.85	High Extent
4.	Ability to surf the internet	3.31	.91	High Extent
5.	Ability to use mobile phones	3.19	.95	High Extent
6.	Knowledge of computer troubleshooting	3.37	.89	High Extent
7.	Installation of software	3.50	1.01	High Extent
8.	Knowledge of e-mail	3.22	.90	High Extent
		3.30		High Extent

Field Research, 2025.

The data in Table 1 reveal that the respondents rated all the items with mean ratings ranging from 3.19 to 3.50, indicating the extent to which digital literacy enhances entrepreneurial success in Delta State, and indicating a high degree of agreement. The standard deviations between 0.85 and 1.01 indicate the respondents' opinions were close. The cluster mean of 3.30 indicates that digital literacy enhances entrepreneurial success in Delta State to a high extent.

Research Question Two

To what extent does digital commerce enhance entrepreneurial success in Delta State?

Table 2: Respondents' Mean Rating on the Extent Digital Commerce Enhances Entrepreneurial Success (N=92)

S/N	Item Description	Mean	SD	Remarks
1.	Using digital marketing platforms to advertise products	3.12	.80	High Extent
2.	Creating online shops for the sale of goods and services	3.00	.87	High Extent
3.	Using online payment systems	3.35	.89	High Extent
4.	Allowing for seller-client interactions online	3.08	.74	High Extent
5.	Ensuring the security of the e-payment system	3.19	.95	High Extent
6.	Ensuring the privacy of the digital commerce tool	3.21	.92	High Extent
7.	Conducting frequent website maintenance	3.07	.77	High Extent
8.	Allowing for customers' feedback on the e-commerce platform	3.38	.86	High Extent
		3.17		High Extent

Field Research, 2025.

The data in Table 2 reveal that the respondents rated all items with mean ratings ranging from 3.00 to 3.38 on the extent to which digital commerce enhances entrepreneurial success in Delta State. The standard deviations between .74 and .95 indicate that the respondents' opinions were close. The cluster mean of 3.17 indicates that digital commerce enhances entrepreneurial success in Delta State to a high extent.

Hypothesis One

There is no significant difference in the mean ratings of experienced (those with more than 10 years of experience) and less experienced (those with less than 10 years of experience) SME managers regarding the extent to which digital literacy enhances entrepreneurial success in Delta State.

Table 3: Summary of t-test analysis on the Extent to which Digital Literacy Enhances Entrepreneurial Success Based on Years of Experience

Variable	n	$\bar{x}$	SD	df	α	p-value	Decision
Experienced Managers	59	3.34	.89	90	.05	.64	Not Significant
Less Exp. Managers	33	3.25	.91				

The data in Table 3 shows that the p-value of 0.64 is greater than the 0.05 alpha level of significance. This means there is no statistically significant difference in the mean ratings of experienced and less experienced SME managers regarding the extent to which digital literacy enhances entrepreneurial success in Delta State. The hypothesis was therefore accepted.

Hypothesis Two

There is no significant difference in the mean ratings of experienced (those with more than 10 years of experience) and less experienced (those with less than 10 years of experience) SME managers regarding the extent to which digital commerce influences entrepreneurial success in Delta State.

Table 4: Summary of t-test analysis on the Extent to which Digital Commerce Enhances Entrepreneurial Success Based on Years of Experience

Variable	n	$\bar{x}$	SD	df	α	p-value	Decision
Experienced Managers	59	3.12	.80	90	.05	.69	Not Significant
Less Exp. Managers	33	3.19	.86				

The data in Table 4 shows that the p-value of 0.69 is greater than the 0.05 alpha level of significance. This means there is no statistically significant difference in the mean ratings of experienced and less experienced SME managers regarding the extent to which digital commerce enhances entrepreneurial success in Delta State. The hypothesis was therefore accepted.

Discussion

The study's findings indicated that digital literacy significantly enhances entrepreneurial success in Delta State. Additionally, it was observed that knowledge of basic computer skills and tools is crucial in bolstering regional entrepreneurial achievements. This aligns with the work of Ojemaogha (2019), who noted that digital literacy contributes to entrepreneurial success by equipping entrepreneurs with the technological skills necessary to foster innovation in the contemporary business landscape. Nor-Aslamiah (2015) also emphasised that technological proficiency positions entrepreneurs to better access valuable information and data that can benefit their business operations. Furthermore, the results showed no statistically significant difference in the mean ratings between experienced and less experienced SME managers regarding the extent to which digital literacy enhances entrepreneurial success in Delta State. This indicates that all sampled SME managers concurred on the positive impact of digital literacy on entrepreneurial success. This perspective is further supported by Aytekm and Ozlem (2014), who asserted that digital literacy enhances the business leadership capabilities of individuals.

The study's findings suggest that digital commerce has a significant impact on entrepreneurial success in Delta State. Specifically, elements of digital commerce—such as e-marketing, online shopping and payment systems, and online security—enable enterprises to achieve increased reach and enhanced customer satisfaction. This aligns with Ribble (2021), who reported that digital commerce enables entrepreneurs to access a larger customer base beyond their immediate geographical boundaries. Additionally, Isman and Gungoren (2014) noted that the benefits of digital citizenship, which encompasses digital

commerce, provide individuals with opportunities that extend beyond their local or national contexts. Furthermore, the study found no statistically significant difference in the mean ratings of experienced and less experienced SME managers regarding the extent to which digital commerce contributes to entrepreneurial success in Delta State. This observation supports the findings of Manzuoli, Sánchez, and Bedoya (2019), who emphasised that digital citizenship fosters innovation in business.

Conclusion

Based on the study's findings, the researchers conclude that digital citizenship enhances entrepreneurial success in Delta State. Digital citizenship, fostered through digital literacy and commerce, offers enterprises opportunities for innovation and growth. Through these innovations, businesses can remain competitive and achieve sustainable business growth.

Recommendations

Based on the findings of the study, the researcher recommended, among others, that:

1. Federal and State governments should ensure that information and communication technology infrastructure is made available, adequate and accessible to facilitate digital utilisation among SMES.
2. The Small and Medium-Scale Enterprise Development Agency (SMEDAN) should organise digital citizenship education seminars, workshops, and conferences to improve entrepreneurs' digital literacy and commercial utilisation skills.

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