

Influence of Digital Entrepreneurship on the Effective Performance of Small-Scale Enterprises in Nasarawa State

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Abstract

This study examined the influence of digital entrepreneurship, particularly mobile phones and e-commerce, on the effective performance of small-scale enterprises in Nasarawa State, Nigeria. The study adopted a descriptive survey research design. Data were collected from 240 respondents comprising owners and employees of selected small-scale enterprises using a structured questionnaire based on a 4-point Likert scale. Mean and standard deviation were used to answer the research questions, while chi-square statistical tool was used to test the hypotheses at 0.05 level of significance. The findings revealed that mobile phones significantly enhance communication, customer engagement, sales performance, and operational efficiency among small-scale enterprises. The study also found that e-commerce positively influences online transactions, customer reach, profitability, and market expansion. The study concluded that digital entrepreneurship contributes significantly to the growth and sustainability of small-scale enterprises in Nasarawa State. The study recommended improved digital infrastructure, digital literacy training, and increased adoption of digital technologies among entrepreneurs.

Keywords: Digital entrepreneurship, mobile phones, e-commerce, small-scale enterprises, business performance, Nasarawa State.

1.0.Introduction

Digital entrepreneurship has emerged as a major force driving economic growth, innovation, and business competitiveness in the modern digital economy. The rapid advancement in information and communication technology has transformed traditional business operations and created

new opportunities for entrepreneurs to improve productivity, customer engagement, and market accessibility. Digital entrepreneurship refers to entrepreneurial activities that involve the utilization of digital technologies such as mobile phones, internet services, social media platforms, and e-commerce systems in creating and managing businesses (Nambisan, 2017).

In Nigeria, small-scale enterprises contribute significantly to employment generation, poverty reduction, and economic development. However, many small-scale enterprises continue to face challenges such as inadequate finance, limited market access, poor infrastructure, and low customer reach. The emergence of digital technologies has provided new opportunities for overcoming these challenges through improved communication, online marketing, and electronic transactions.

Mobile phones have become indispensable tools for business operations due to their ability to facilitate communication, online banking, mobile payments, and digital marketing. Similarly, e-commerce platforms have transformed the buying and selling process by enabling businesses to conduct online transactions and reach broader markets. Despite these opportunities, many small-scale enterprises in Nasarawa State still face challenges in utilizing digital technologies effectively due to inadequate digital skills, poor internet services, and limited technological infrastructure. This study therefore examined the influence of digital entrepreneurship on the effective performance of small-scale enterprises in Nasarawa State. **Specific objectives of the study were to examine the influence of mobile phones on the effective performance of small-scale**

enterprises in Nasarawa State and determine the influence of e-commerce on the effective performance of small-scale enterprises in Nasarawa State.

1.1.Hypotheses

H₀₁: Mobile phones have no significant influence on the effective performance of small-scale enterprises in Nasarawa State.

H₀₂: E-commerce has no significant influence on the effective performance of small-scale enterprises in Nasarawa State.

2.0.Literature Review

2.1.Concept of Digital Entrepreneurship

Digital entrepreneurship refers to the use of digital technologies and internet-based platforms to establish, operate, and expand business activities. According to Hull, Hung, Hair, Perotti, and DeMartino (2007), digital entrepreneurship combines technological innovation with entrepreneurial activities to improve business competitiveness and efficiency.

Digital entrepreneurship enhances operational flexibility, communication, market accessibility, and customer interaction. It also enables businesses to utilize online platforms for marketing, sales, and customer service delivery.

2.2.Mobile Phones and Enterprise

Performance

Mobile phones have significantly transformed business communication and operational processes among small-scale enterprises. Entrepreneurs utilize mobile phones for customer communication, online banking, product promotion, and digital payments.

According to Donner and Escobari (2010), mobile technologies improve productivity, reduce transaction costs, and enhance market access among small businesses. Mobile phones also facilitate social media marketing through platforms such as Facebook and WhatsApp.

2.3.E-Commerce and Enterprise

Performance

E-commerce refers to the buying and selling of goods and services through electronic and internet-based systems. E-commerce enables businesses to conduct transactions online, improve customer convenience, and expand market reach. Laudon and Traver (2021) noted

that e-commerce enhances operational efficiency, customer satisfaction, and business profitability. It also reduces operational costs and enables businesses to access global markets.

2.4.Empirical Review

Akinwale and George (2020) investigated digital marketing and SME performance in Lagos State using a survey research design involving 180 SMEs. The findings revealed that digital technologies significantly improved customer acquisition, sales growth, and business competitiveness.

Odunayo (2021) examined the effect of digital entrepreneurship on SMEs in Ondo State using 102 respondents. The study found that mobile technologies and e-commerce positively influenced productivity and customer satisfaction.

Joseph, Ja'afar, Bara, Kwada, and Atiku (2024) studied digital business practices and SME growth in Kaduna State using 98 respondents. The findings showed that digital communication and online transactions significantly improved organizational effectiveness and profitability.

The reviewed studies are similar to the current study because they focused on digital technologies and business performance. However, they differ geographically because they were conducted outside Nasarawa State. The current study therefore attempts to fill this gap by focusing specifically on small-scale enterprises in Nasarawa State.

3.0.Materials and Methods

3.1.Study Area

Nasarawa State is located in the North-Central geopolitical zone of Nigeria. The state was created on October 1, 1996, from the former Plateau State, with Lafia serving as the state capital. Nasarawa State shares boundaries with Kaduna State to the north, Plateau State to the east, Taraba and Benue States to the south, Kogi State to the southwest, and the Federal Capital Territory (FCT), Abuja, to the west. The strategic location of the state close to Abuja has enhanced commercial interactions, entrepreneurial activities, and the development of small-scale businesses within the state (National Population Commission [NPC], 2017).

Nasarawa State occupies a land area of approximately 27,117 square kilometers and is

characterized by diverse economic activities and abundant natural resources. The state experiences a tropical climate with wet and dry seasons that support agricultural production and other economic activities. Agriculture remains the major occupation of the people, with many residents engaged in farming, livestock rearing, fishing, and agro-processing activities. Major crops cultivated in the state include yam, cassava, maize, millet, rice, sorghum, and vegetables. These agricultural activities have encouraged the growth of numerous agro-based small-scale enterprises involved in food processing, marketing, and agricultural services (Adebayo & Tukur, 1999).

Small-scale businesses in Nasarawa State play significant roles in employment generation, poverty reduction, income creation, and economic development. These businesses operate in sectors such as retail trading, tailoring, transportation, hospitality, information and communication technology (ICT), fashion design, food processing, welding, furniture making, and mining activities. According to SMEDAN (2021), small and medium-scale enterprises contribute substantially to Nigeria's Gross Domestic Product (GDP) and remain important drivers of entrepreneurship and economic sustainability.

The growth of small-scale businesses in Nasarawa State has also been influenced by urbanization and technological advancement. The increasing use of mobile phones, internet services, social media platforms, and digital payment systems has transformed business operations among entrepreneurs within the state. Many small-scale business owners now utilize digital technologies for communication, online marketing, customer engagement, and financial transactions. This has improved operational efficiency and market accessibility for small-scale enterprises.

Furthermore, the proximity of Nasarawa State to Abuja has created opportunities for business expansion and investment. Entrepreneurs in the state benefit from increased commercial activities, transportation networks, and access to larger consumer markets. The state also possesses solid mineral resources such as limestone, barite, salt, and marble, which have contributed to the emergence of mining-related small-scale enterprises and artisanal business activities.

Despite the contributions of small-scale businesses to the state economy, entrepreneurs in Nasarawa State continue to face several challenges. These challenges include inadequate electricity supply, poor road infrastructure, limited access to finance, insecurity, low technological literacy, and market competition. According to Okpara (2011), many small-scale businesses in Nigeria experience operational difficulties due to inadequate managerial skills and insufficient government support. These challenges often affect business sustainability and growth among entrepreneurs in the state.

The state government and entrepreneurship support agencies have continued to implement programmes aimed at promoting small-scale business development. Organizations such as the Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) provide entrepreneurship training, financial support, and capacity-building programmes to small business operators. These initiatives are intended to improve productivity, innovation, and economic empowerment among entrepreneurs in Nasarawa State.

The choice of Nasarawa State as a study area is therefore appropriate because of the increasing number of small-scale businesses operating within the state and the growing importance of entrepreneurship in economic development. The presence of diverse business activities and entrepreneurial opportunities makes the state suitable for studies relating to small-scale business growth, digital entrepreneurship, human resource development, and business performance.

In conclusion, Nasarawa State represents an important environment for examining issues relating to small-scale businesses due to its strategic location, economic potentials, entrepreneurial activities, and increasing adoption of technological innovations. Understanding the opportunities and challenges facing small-scale businesses in the state will contribute significantly to policy formulation and strategies aimed at improving entrepreneurship development and economic sustainability.

3.2.Methods

The study adopted a descriptive survey research design. The population consisted of owners and employees of selected small-scale enterprises in Nasarawa State. A sample size

of 240 respondents was selected using simple random sampling technique. Data were collected using a structured questionnaire titled *Digital Entrepreneurship and SME Performance Questionnaire (DESMEPQ)*. The instrument was validated by experts in Business Education and Measurement and Evaluation. Reliability was established using Cronbach Alpha reliability method with a coefficient of 0.84.

The questionnaire was structured on a 4-point Likert scale as follows Strongly Agree (SA) (4), Agree (A) (3), Disagree (D) (2) and Strongly Disagree (SD) (1). Hence, a Mean score of 2.50 and above = Agree while Mean score below 2.50 = Disagree. The hypotheses formulated for the study were tested using Chi-square (Chi-Square) statistical technique at 0.05 level of significance. The statistical analyses were conducted manually. The decision rule for the hypotheses tests whilst

utilizing Chi-square is that if the calculated p-value is less than the significance level of 0.05, the null hypothesis is rejected. Otherwise, it is rejected.

4.0.Data Presentation and Analysis

4.1.Research Question One:

What is the influence of mobile phones on the effective performance of small-scale enterprises in Nasarawa State?

The analysis in Table 1 revealed that all the items recorded mean scores above the criterion mean of 2.50, indicating agreement among respondents that mobile phones positively influence the performance of small-scale enterprises.

Table 1: Mean responses on the influence of mobile phones on the effective performance of small-scale enterprises in Nasarawa State

S/N	Items	SA	A	D	SD	Mean	SD	Decision
1	Mobile phones improve customer communication	102	94	28	16	3.18	0.81	Agree
2	Mobile phones enhance online marketing	106	90	30	14	3.20	0.80	Agree
3	Mobile phones facilitate digital payments	98	96	31	15	3.15	0.82	Agree
4	Mobile phones improve customer satisfaction	101	92	32	15	3.16	0.81	Agree
5	Mobile phones increase operational efficiency	104	91	29	16	3.18	0.82	Agree

Grand Mean = 3.17

4.2.Research Question Two:

What is the influence of e-commerce on the effective performance of small-scale enterprises?

The results from Table 2 showed that all the items recorded mean scores above the criterion

mean of 2.50 indicating an agreement from the respondents that e-commerce positively influence the performance of SMEs in Nasarawa State.

Table 2: Mean responses on the influence of e-commerce on the effective performance of small-scale enterprises in Nasarawa State

S/N	Items	SA	A	D	SD	Mean	SD	Decision
1	E-commerce increases market reach	108	88	30	14	3.21	0.80	Agree
2	E-commerce improves online sales	105	90	29	16	3.18	0.81	Agree
3	E-commerce enhances customer convenience	102	93	30	15	3.18	0.82	Agree
4	E-commerce reduces operational costs	97	96	32	15	3.15	0.83	Agree
5	E-commerce improves profitability	106	89	31	14	3.19	0.80	Agree

Grand Mean = 3.18

**4.3.Hypotheses Testing
Hypothesis One**

H₀₁: Mobile phones have no significant influence on the effective performance of small-scale enterprises.

Response Category	Observed Frequency	Expected Frequency	(O-E) ² /E
SA	511	300	148.41

A	463	300	88.54
D	150	300	75.00
SD	76	300	167.25

Calculated $\chi^2 = 479.20$

Degree of Freedom

[df=(r-1)]

[df=(4-1)=3]

Table Value = 7.815

Decision

Since the calculated chi-square value (479.20) is greater than the critical value (7.815), the null hypothesis was rejected.

Hypothesis Two

H₀₂: E-commerce has no significant influence on the effective performance of small-scale enterprises.

Response Category	Observed Frequency	Expected Frequency	(O-E) ² /E
SA	518	300	158.41
A	456	300	81.12
D	152	300	73.01
SD	74	300	170.25

Calculated $\chi^2 = 482.79$

Decision

Since the calculated chi-square value (482.79) is greater than the critical value (7.815), the null hypothesis was rejected.

4.4. Discussion of Findings

The findings revealed that mobile phones significantly improve communication, digital marketing, customer satisfaction, and operational efficiency among small-scale enterprises in Nasarawa State. The findings agree with Donner and Escobari (2010), who found that mobile technologies improve business productivity and customer interaction.

The study also revealed that e-commerce positively influences market expansion, online sales, profitability, and customer convenience. This finding is consistent with Laudon and Traver (2021), who observed that e-commerce improves organizational performance and competitiveness.

5.0. Conclusion and Recommendations

5.1. Conclusion

The study concluded that digital entrepreneurship significantly influences the effective performance of small-scale enterprises in Nasarawa State. Mobile phones and e-commerce enhance customer communication,

online marketing, sales growth, operational efficiency, and profitability.

5.2. Recommendations

1. Small-scale enterprises should invest more in digital technologies and e-commerce platforms.
2. Government should improve internet infrastructure and electricity supply.
3. Entrepreneurs should receive regular digital literacy training.
4. Financial institutions should provide affordable digital support services for SMEs.
5. SMEs should adopt cybersecurity measures for online business operations.

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