

ANALYZING THE ROLE OF DIGITAL MESSAGING PLATFORMS IN AUGMENTING BUSINESS EFFICIENCY AMONG SMALL-SCALE ENTERPRISES IN DELTA STATE

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Abstract

This study analyzed the role of digital messaging platforms in augmenting business efficiency among small-scale enterprises in Delta State. Two research questions and two hypotheses guided this study. This study adopted the descriptive survey research design. The population of this study comprised of 12,540 managers whose businesses were registered in Delta State. Simple random sampling technique was used to select 388 respondents. The questionnaire was used as instrument for data collection. To ascertain the face validity of the instrument, the draft of the instrument was given to two experts who are lecturers in the Department of Educational Foundations. Cronbach alpha reliability method was used to determine the internal consistency of the questionnaire items while a reliability coefficient of 0.90 was obtained. The researcher with the help of two research assistants administered 388 copies of the instrument and retrieved 234 copies which were used for analysis. The data collected were analyzed using mean and standard deviation while t-test was used to test the null hypotheses at 0.05 level of significance. The findings of the study revealed that to a high extent, WhatsApp and Facebook digital messaging platforms augment business efficiency among small-scale enterprises in Delta State. The study recommended that small-scale enterprises should be provided with targeted training programs that focus on building digital literacy and proficiency in using digital messaging platforms. Workshops, online tutorials, and partnerships with technology training centers can equip small-scale business owners and staff with the necessary skills to leverage these tools effectively.

Keywords: Digital Messaging Platforms, Business Efficiency, Small-Scale Enterprises, WhatsApp, Facebook.

Introduction

Small-scale enterprises are typically defined as businesses that operate on a limited scale in terms of workforce size, capital investment, and market reach. These enterprises usually have a small number of employees and modest financial resources,

allowing them to serve local or regional markets with specialized or niche products and services (Chukwu & Eze, 2022). In many economies, small-scale enterprises form the backbone of the local business landscape, playing a critical role in job creation and economic diversification. These enterprises are significant because they help drive grassroots economic development by fostering innovation and offering tailored solutions that larger organizations might overlook (Peters & Smith, 2023). Their operations are often more deeply intertwined with local cultures and consumer needs, which position them uniquely to meet specific market demands while promoting sustainable growth within their communities. However, these businesses tend to face challenges such as constrained budgets, limited access to advanced technological infrastructures, and the need to maximize every operational Naira (Uche & Nwankwo, 2023). In this setting, digital messaging platforms emerge as a critical tool, offering cost-effective, efficient, and user-friendly means for communication.

Digital messaging platforms are comprehensive digital communication systems designed to enable both real-time and asynchronous exchange of messages, multimedia, and data across a range of devices including smartphones, tablets, and computers. They offer a suite of features such as text chat, voice and video calls, file sharing, and even integration with productivity tools, which together create a versatile ecosystem for communication (Ibrahim & Ahmed, 2023). Underpinned by advanced encryption and security protocols, these platforms ensure that both personal and business communications remain confidential and secure. Their robust infrastructure supports scalability and high reliability, facilitating seamless interaction among individuals and teams regardless of geographical constraints (Vander & Moyo, 2023). Moreover, many of these platforms are designed to work across different operating systems and networks, making them an indispensable part of the modern digital landscape.

Beyond the basic function of transmitting messages, digital messaging platforms have evolved into dynamic ecosystems that drive collaboration, operational efficiency, and real-time decision-making in various sectors. In the business environment, Rodriguez and Kumar (2022), stated that they are often integrated with customer relationship management systems, automated chatbots, and project management tools to streamline internal communication and enhance customer service experiences. This integration enables businesses to maintain continuous, structured, and documented interactions, which are crucial for remote work, agile project management, and cross-functional collaboration. Additionally, Adeyemi and Bello (2022), affirmed that features such as group messaging, channels, and threaded discussions support complex workflows, making it easier to manage team communications and coordinate large-scale projects. As businesses increasingly pivot towards digital and remote work models, digital messaging platforms continue to evolve, incorporating emerging technologies like artificial intelligence and machine learning to further enhance user experience and drive business innovation.

WhatsApp stands as one of the most influential digital messaging platforms globally, serving as a versatile digital hub where personal networking meets robust business engagement. WhatsApp, with its emphasis on secure and instantaneous communication, has revolutionized the way individuals and businesses interact in the digital era (Sampson & Okoro, 2022). Known for its user-friendly interface and end-to-end encryption, the platform offers a reliable medium for exchanging messages, sharing multimedia content, and organizing group communications. Its versatility is particularly evident in the business realm, where WhatsApp Business allows small-scale enterprises to automate responses, manage customer inquiries, and provide real-time support, thereby streamlining operational processes and enhancing service quality (Wambui & Oduor, 2022). In regions where traditional communication infrastructure may be limited, WhatsApp could become an essential tool for bridging

connectivity gaps and facilitating everyday transactions. The platform's ability to support voice and video calls further enhances its utility, enabling small-scale businesses to engage in direct consultations and virtual meetings without the high costs typically associated with other communication channels (Olumide & Adegoke, 2022). By integrating seamlessly into both personal and professional contexts, WhatsApp plays a critical role in democratizing digital communication, fostering community interactions, and driving economic activities in diverse environments.

Facebook is primarily recognized as a social media platform that facilitates a wide range of activities including content sharing, community building, and social networking. However, it also integrates robust digital messaging functionalities through its dedicated service, Facebook Messenger. Messenger allows users to exchange text messages, make voice and video calls, share multimedia content, and even interact with chatbots, which are all key features of a digital messaging platform (Xiong & Li, 2023). Thus, while Facebook as a whole is not exclusively a digital messaging platform, its comprehensive suite of messaging tools positions it as an integrated platform that serves both social networking and digital communication purposes. Beyond personal connectivity, Facebook offers a suite of tools—such as targeted advertising, live streaming, and detailed analytics that could empower businesses to reach specific demographics and measure campaign effectiveness. For small-scale enterprises particularly, especially in emerging markets, the platform could provide an affordable channel to enhance brand visibility, foster customer loyalty, and drive sales as well (Yeboah & Mensah, 2022).

The alignment between small-scale enterprises and digital messaging platforms such as WhatsApp and Facebook lies in the platforms' ability to bridge resource gaps and empower small-scale businesses to compete effectively in a digital marketplace (Zubair & Afolabi, 2023). Digital messaging platforms could enable small-scale enterprises to conduct real-time customer support, streamline internal

communication, and automate routine tasks through integrated features like chatbots and group messaging. This level of accessibility and functionality could allow small-scale business to foster deeper customer relationships, respond rapidly to market demands, and maintain a competitive edge, despite their limited resources. Despite the promising prospects offered by digital messaging platforms, small-scale enterprises in Delta State face unique challenges that hinder the full realization of its benefits. Issues such as limited digital literacy, inadequate technological infrastructure, and cybersecurity concerns remain significant barriers. Existing literature suggests that while digital messaging platforms can significantly augment business efficiency, the extent of its impact is contingent upon the ability of enterprises to navigate these challenges effectively. It is against this background that this study analyzed the role of digital messaging platforms in augmenting business efficiency among small-scale enterprises in Delta State.

Statement of the Problem

Small-scale enterprises in Delta State, which form the backbone of the regional economy, face persistent challenges related to limited financial resources, inadequate technological infrastructure, and a significant digital literacy gap. Despite the promising potential of digital platforms to streamline operations and enhance market reach, many of these enterprises have not fully capitalized on these tools (Njoroge & Mwangi, 2022; Thakur & Verma, 2022). This underutilization often results in inefficient business processes, reduced customer engagement, and missed opportunities for growth, thereby hampering their competitiveness in an increasingly digital marketplace. While some small-scale enterprises report improved operational efficiency and market expansion through digital integration, others struggle with challenges such as unreliable internet connectivity, cybersecurity concerns, and a lack of tailored digital strategies. This disparity suggests that the potential benefits of digital platforms are not being uniformly realized across the sector, raising concerns

about the broader implications for economic growth and sustainability within the region. Furthermore, there is a notable gap in empirical research that specifically examines how digital messaging platforms influence business efficiency in the context of small-scale enterprises in Delta State. Existing studies often generalize digital adoption in business without considering the unique socio-economic and infrastructural dynamics that characterize this region. Consequently, policymakers and business stakeholders seem to lack the evidence-based insights necessary to design effective interventions that could bridge the digital divide, optimize the use of digital tools, and ultimately drive sustainable business growth. This study aims to fill this gap by analyzing the role of digital messaging platforms in augmenting business efficiency among small-scale enterprises in Delta State.

Purpose of the Study

This study analyzed the role of digital messaging platforms in augmenting business efficiency among small-scale enterprises in Delta State. The study's specific objectives were to find out;

1. the extent to which WhatsApp digital messaging platform augment business efficiency among small-scale enterprises in Delta State.
2. the extent to which Facebook digital messaging platform augment business efficiency among small-scale enterprises in Delta State.

Research Questions

The following research questions were raised to guide this study.

1. To what extent does WhatsApp digital messaging platform augment business efficiency among small-scale enterprises in Delta State?
2. To what extent does Facebook digital messaging platform augment business efficiency among small-scale enterprises in Delta State?

Hypotheses

The following null hypotheses are stated for this study:

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1. There is no significant difference in the mean ratings of the respondents on the extent to which WhatsApp digital messaging platform augment business efficiency among small-scale enterprises in Delta State based on gender.
2. There is no significant difference in the mean ratings of the respondents on the extent to which Facebook digital messaging platform augment business efficiency among small-scale enterprises in Delta State based on location.

Methods

Descriptive survey research design was used for this study. The population for the study comprised of 12,540 managers (7524 males and 5016 females) whose businesses were registered with the Delta State Micro, Small and Medium Enterprises Development Agency (DEMSMA). A total of 8,151 of the businesses are concentrated in urban areas while 4,389 are in the rural areas. Simple random sampling technique was used to select 388 small-scale managers (233 males and 155 females). Similarly, 252 of the managers have their businesses in urban and 136 of them are located in rural area. A researcher developed questionnaire titled "Role of Digital Messaging Platforms in Augmenting Business Efficiency Among Small Scale Enterprises Questionnaire (RDMPABESSEQ)" was used to collect data. The questionnaire items were structured using a four-point response scale with the following options: Very High Extent (VHE) - 4; High Extent (HE) - 3; Low Extent (LE) - 2; Very Low Extent (VLE) – 1. To ascertain the face and content validity of the instrument, the draft of the instrument was given to three experts who are lecturers in the Department of Educational Foundations. In order to ascertain the reliability of the instrument, a trial testing was carried out involving 30 managers of small-scale enterprises in Port Harcourt, River State. The data collected from the respondents in the pilot study was used to compute the reliability of the instrument using Cronbach Alpha. The overall reliability index was 0.90 indicating a high reliability. The researcher with the help of two research assistants administered 388 copies of the

instrument and retrieved 234 copies which were used for analysis. The data collected were analyzed using mean and standard deviation to answer the research questions. Any mean scores within the range of 3.50-4.00 will be regarded as Very High Extent; 2.50 - 3.49 will be regarded as High Extent; while 1.50 - 2.49 will be regarded as Low Extent and 1.0 - 1.49 will be regarded as Very Low Extent. Similarly, the null hypotheses will be tested using the t-test at 0.05 level of significance. A null hypotheses will be accepted if the p-value is 0.05 and above. It will be rejected if the p-value is below 0.05 level of significance.

Results

Research Question One: To what extent does WhatsApp digital messaging platform augment business efficiency among small-scale enterprises in Delta State?

Table 1: Mean Scores and Standard Deviation of Responses on the Extent to Which WhatsApp Digital Messaging Platform Augment Business Efficiency among Small-scale Enterprises in Delta State.
n = 234

S/N	STATEMENTS	$\bar{x}$	SD	REMARK
1.	WhatsApp minimizes communication expenses for small-scale enterprises by providing a free, internet-based messaging service that eliminates the need for costly traditional communication methods.	3.72	0.59	VHE
2.	The WhatsApp Business app empowers businesses to create professional profiles that include detailed business information, operating hours, and contact details, enhancing their credibility.	3.39	0.95	HE
3.	The group chat feature enables seamless collaboration among team members, supporting coordinated discussions and collective problem-solving in a dynamic work environment.	3.01	0.83	HE
4.	The platform's ability to share various forms of multimedia content—images, videos, and documents—enables businesses to engage customers with rich, interactive marketing materials.	3.26	0.81	HE
5.	Its mobile accessibility ensures that small-scale enterprises remain connected and operational from virtually any location, enhancing overall flexibility and responsiveness in today's fast-paced market.	2.50	0.98	HE
Grand Mean		3.18	0.83	HE

Analysis in Table 1 reveals the mean scores of respondents ranged from 2.50 – 3.72. The respondents rated high extent to the statements in items 1–5. The grand mean score for the entire item was 3.18, which is above the cutoff point of 2.50 (high

extent). This reveals that to a high extent, WhatsApp digital messaging platform augment business efficiency among small-scale enterprises in Delta State. The standard deviation score of 0.83 indicates that the respondents were homogenous in their response.

Research Question Two: To what extent does Facebook digital messaging platform augment business efficiency among small-scale enterprises in Delta State?

Table 2: Mean Scores and Standard Deviation of Responses on the Extent to Which Facebook Digital Messaging Platform Augment Business Efficiency Among Small-scale Enterprises in Delta State. **n = 234**

S/N	STATEMENTS	$\bar{x}$	SD	REMARK
6.	The platform enables real-time interactions, ensuring that customer inquiries are addressed promptly and enhancing overall service responsiveness.	3.55	0.90	VHE
7.	Integrated voice and video call features allow for personalized consultations and virtual meetings, which can foster stronger customer engagement.	3.66	0.73	VHE
8.	Its seamless integration with Facebook Pages enables businesses to convert social media interactions directly into customer leads and sales opportunities.	3.66	0.89	VHE
9.	An intuitive and familiar interface reduces the training time needed for staff and makes it easier for customers to engage with the business.	3.17	1.02	HE
10.	Built-in analytics tools offer insights into customer engagement metrics, enabling businesses to refine their communication strategies based on data-driven decisions.	3.57	0.90	VHE
Grand Mean		3.52	0.89	VHE

Analysis in Table 2 reveals the mean scores of respondents ranged from 3.17 – 3.66. this shows that the respondents rated high extent to the statements in items 6–10. The grand mean score for the entire item was 3.52, which is above the cutoff point of 2.50 (high extent). This reveals that to a very high extent, Facebook digital messaging platform augment business efficiency among small-scale enterprises in Delta State. The standard deviation score of 0.89 indicates that the respondents were homogenous in their response.

Hypotheses

Ho₁: There is no significant difference in the mean ratings of the respondents on the extent to which WhatsApp digital messaging platform augment business efficiency among small-scale enterprises in Delta State based on gender.

Table 3: Analysis of t-test on the Mean and Standard Deviation Responses of the Respondents on the Extent to which WhatsApp digital messaging platform augment Business Efficiency Among Small-Scale Enterprises in Delta State Based on Gender.

Respondents	n	$\bar{x}$	S ²	Df	t.cal	t.crit	α	Remark
Male	145	3.59	0.69	106	1.353	1.970	.05	Retain Ho
Female	89	3.46	0.69					

From the t-test table, since t-cal (1.353) < t-crit (1.970), Ho₁ is retained. The null hypothesis is hereby retained that there is no significant difference in the mean ratings of the respondents on the extent to which WhatsApp digital messaging platform augment business efficiency among small-scale enterprises in Delta State based on gender.

Ho₂: There is no significant difference in the mean ratings of the respondents on the extent to which Facebook digital messaging platform augment business efficiency among small-scale enterprises in Delta State based on location.

Table 4: Analysis of t-test on the Mean and Standard Deviation Responses of the Respondents on the Extent to which Facebook Digital Messaging Platform Augment Business Efficiency Among Small-scale Enterprises in Delta State Based on Location.

Respondents	n	$\bar{x}$	S ²	df	t.cal	t.crit	α	Remark
Urban	219	3.74	0.52	232	-1.391	1.970	.05	Retain Ho
Rural	15	3.87	0.34					

From the t-test table, since t-cal (-1.391) < t-crit (1.970), Ho₂ is retained. The null hypothesis is hereby retained that there is no significant difference in the mean ratings of the respondents on the extent to which Facebook digital messaging platform augment business efficiency among small-scale enterprises in Delta State based on location.

Discussion of Findings

One of the findings of this study reveals that to a high extent, WhatsApp digital messaging platform augment business efficiency among small-scale enterprises in Delta State. Analyses show that WhatsApp enhances business efficiency among small-scale enterprises by providing a cost-effective, user-friendly platform that streamlines communication and customer engagement. As a mobile-based messaging app, it offers real-time text, voice, and video communication, enabling small-scale businesses to respond promptly to customer inquiries and coordinate internal operations without the need for expensive traditional communication systems. Its group chat and broadcast features allow for rapid dissemination of information to teams or customer segments, thereby reducing delays in decision-making and operational bottlenecks. Additionally, WhatsApp's end-to-end encryption ensures that communications remain secure, which is crucial for maintaining customer trust and safeguarding sensitive business information. Furthermore, the dedicated WhatsApp Business application offers specialized features designed to boost operational productivity. Small-scale enterprises can create detailed business profiles that include contact information, operating hours, and product catalogs, providing customers with immediate access to essential business details. Automated messaging tools such as quick replies, away messages, and greeting messages help streamline routine interactions, freeing up valuable time for staff to focus on more strategic tasks. Integration with multimedia sharing enables businesses to send images, brochures, and documents instantly, facilitating smoother transactions and more effective marketing. Collectively, these features not only enhance customer service and engagement but also contribute significantly to operational efficiency and cost reduction, making WhatsApp a vital tool in the digital transformation of small-scale enterprises. This finding aligns with Wambui and Oduor (2022), that WhatsApp versatility is particularly evident in the business realm, where WhatsApp Business

tend to allow small-scale enterprises to automate responses, manage customer inquiries, and provide real-time support, thereby streamlining operational processes and enhancing service quality.

Another finding of the study revealed that to a very high extent, Facebook digital messaging platform augment business efficiency among small-scale enterprises in Delta State. Facebook Messenger enhances business efficiency among small-scale enterprises by serving as a dynamic and cost-effective communication hub. It allows businesses to manage real-time interactions with customers through instant messaging, voice, and video calls. This immediacy not only improves customer service responsiveness but also facilitates efficient internal communication among team members. The platform's integration with Facebook Pages means that potential customers can easily reach out directly from the business's online presence, streamlining the conversion of inquiries into tangible sales opportunities. Moreover, Messenger's widespread usage and familiarity among diverse user groups make it an accessible tool for small-scale businesses looking to engage a broad audience without incurring additional costs. Additionally, Facebook Messenger supports the use of automation and chatbots, which further augment business efficiency by handling routine customer inquiries and providing instant responses outside of standard operating hours. This automation relieves staff from repetitive tasks, enabling them to focus on more complex customer needs and strategic initiatives. The platform's multimedia capabilities allow businesses to share images, videos, and documents, enhancing marketing efforts and product demonstrations. Furthermore, Messenger integrates with Facebook's comprehensive analytics tools, enabling enterprises to monitor engagement, measure response times, and refine their communication strategies based on actionable insights. Together, these features empower small-scale enterprises to improve customer relations, optimize operational workflows, and ultimately drive sustainable growth in a competitive digital landscape. This finding is

in consonant with Yeboah and Mensah (2022), that for small-scale enterprises particularly, especially in emerging markets, Facebook platform could provide an affordable channel to enhance brand visibility, foster customer loyalty, and drive sales as well.

Conclusion

In conclusion, the analysis demonstrates that digital messaging platforms such as Facebook Messenger and WhatsApp Business play a pivotal role in enhancing the operational efficiency of small-scale enterprises in Delta State. By offering a cost-effective, real-time, and versatile communication channel, these platforms empower businesses to address customer inquiries promptly, streamline internal coordination, and facilitate dynamic marketing initiatives. The integration of features like voice and video calls, automated chatbots, and multimedia sharing not only supports personalized customer interactions but also contributes to reduced operational costs and improved service delivery.

Recommendations

From the findings of this study, the following recommendations are put forward:

1. Small-scale enterprises should be provided with targeted training programs that focus on building digital literacy and proficiency in using digital messaging platforms. Workshops, online tutorials, and partnerships with technology training centers can equip business owners and staff with the necessary skills to leverage these tools effectively.
2. Government and private sector collaboration is essential to improve internet connectivity across Delta State. Investments in reliable broadband and mobile networks will enable small-scale enterprises to utilize digital messaging platforms without interruptions, thereby enhancing overall operational efficiency.

References

- Adeyemi, S. A., & Bello, T. (2022). Digital messaging platforms and business efficiency in emerging markets. *Journal of Business Communication*, 58(2), 150–172.
- Chukwu, O. C., & Eze, U. (2022). The integration of digital platforms in Nigerian small-scale enterprises. *African Journal of Business and Economic Research*, 16(3), 25–45.
- Ibrahim, M. S., & Ahmed, F. (2023). Leveraging digital messaging for enhanced customer engagement in SMEs. *International Journal of Digital Marketing*, 12(1), 60–78.
- Njoroge, E. W., & Mwangi, J. (2022). Impact of digital communication platforms on small business performance in East Africa. *International Journal of Business and Technology*, 8(3), 99–115.
- Olumide, O. O., & Adegoke, S. (2022). Social media messaging and operational efficiency in Nigerian enterprises. *Journal of Digital Innovation*, 9(4), 345–362.
- Peters, D. L., & Smith, K. (2023). Digital communication tools and business transformation in SMEs. *Journal of Small Business and Enterprise Development*, 30(2), 90–112.
- Rodriguez, L. M., & Kumar, A. (2022). Chatbots and customer service efficiency in small enterprises. *International Journal of Information Management*, 45, 88–99.
- Sampson, R., & Okoro, C. (2022). WhatsApp usage and business growth in Sub-Saharan Africa. *African Journal of Information Systems*, 14(2), 103–120.
- Thakur, R., & Verma, S. (2022). Enhancing business communication through digital messaging platforms. *Journal of Communication Technology*, 17(3), 210–228.

- Uche, C. A., & Nwankwo, P. (2023). Digital messaging and operational excellence in Nigerian SMEs. *Journal of African Business Studies*, 11(1), 55–73. <https://doi.org/10.1080/23311866.2023.2244444>.
- Van der Merwe, C., & Moyo, L. (2023). Evaluating the impact of digital communication on small enterprise performance in Africa. *International Journal of Business Communication*, 62(1), 35–50.
- Wambui, J. N., & Oduor, K. (2022). The role of WhatsApp in customer service for small businesses in Kenya. *Journal of Information Systems and Technology Management*, 19(4), 200–218.
- Xiong, Y., & Li, H. (2023). Digital tools and business innovation: Messaging platforms in SMEs. *Journal of Business Innovation*, 10(1), 50–68.
- Yeboah, A. K., & Mensah, P. (2022). Messaging apps and business efficiency: A study on Ghanaian SMEs. *Journal of African Economic Review*, 14(2), 112–130.
- Zubair, M., & Afolabi, I. (2023). Digital messaging as a catalyst for business transformation in emerging economies. *Journal of Digital Business*, 7(2), 130–149.