IMPACT OF DIGITAL TECHNOLOGY ADOPTION ON PROFITABILITY AND BUSINESS EXPANSION IN SMES

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Abstract
The study examined the impact of digital technology adoption on profitability and business expansion in Small and Medium Enterprises (SMEs). Descriptive survey research design was employed and questionnaire was used as the research instrument. The study population comprised 8,395 SMEs operating in Lagos State and Krejcie and Morgan (1970) was used to determine a sample size of three hundred and sixty-seven (367) respondents while purposive sampling technique was used to select the SMEs. Simple percentage was used to analyze the responses of the questionnaire while regression statistics was used to test the hypotheses. Findings revealed that e-commerce integration has significant impact on the revenue growth in SMEs ($p < 0.05$), digital marketing also has a significant impact on the return on investment (ROI) in SMEs ($p < 0.05$), automation tools significantly impact the cost efficiency in SMEs ($p < 0.05$) and customer relationship management (CRM) systems significantly impact the customer retention rate in SMEs ($p < 0.05$). These findings emphasized that the strategic adoption of digital technologies is no longer optional but essential for SMEs seeking sustainable growth in an increasingly digital economy. It therefore recommended that SME owners and managers should prioritize the integration of digital technologies into their business operations and invest in digital literacy training for themselves and their employees to ensure effective implementation and utilization of these technologies.

***Key words:** Business Expansion, Digital Technology, Profitability, E-Commerce Integration, Digital Marketing, Automation Tools, Customer Relationship Management*

Introduction

Digital technology refers to the use of electronic devices, systems, and platforms that generate, store, process and communicate information using digital signals. Digital technology has transformed various aspects of modern life and world of business. In today's dynamic and intensely competitive business landscape, embracing digital technology has become vital for the growth and sustainability of Small and Medium-

sized Enterprises (SMEs). Digital technology adoption refers to how businesses incorporate different digital tools into their workflows The adoption of digital tools in businesses operation encompasses the use of e-commerce, digital marketing, automation systems, and Customer relationship Management (CRM) platforms to enhance daily operations (Brynjolfsson & McAfee, 2017). Research shows that e-commerce enhances revenue generation by broadening market access and improving customer convenience (Turban, Pollard, & Wood, 2015; Laudon & Traver, 2020). Likewise, digital marketing boosts brand visibility and improves returns on investment through targeted and data- informed campaigns (Kotler & Keller, 2016; Chaffey & Ellis-Chadwick, 2019). In addition, automation tools help streamline processes, lower operational costs, and support business scalability (Groover, 2019). CRM systems, on the other hand, assist in strengthening customer loyalty and managing relationships more effectively, contributing to long-term business success (Buttle & Maklan, 2019). These innovations play a significant role in improving decision-making, operational efficiency, and market penetration, all of which are essential for SMEs to stay competitive locally and internationally (Davenport & Ronanki, 2018).

Profitability and business growth are essential indicators of SME performance. Profitability is typically assessed through revenue increase, cost control, customer retention, and return on investment (ROI) (Laudon & Traver, 2020; Ryan, 2020). Research indicates that digital technology adoption enhances profitability by optimizing operations and reducing expenses (Brynjolfsson & McAfee, 2017). Business expansion is often measured through increased market presence, improved brand recognition, expanded operations, and customer base growth (Payne & Frow, 2017). Evidence suggests that digital technologies enable SMEs to grow beyond traditional boundaries, unlocking new opportunities for competitiveness and development (Davenport & Ronanki, 2018). Digital marketing has transformed customer engagement and brand promotion. Nevertheless, many SMEs do not achieve satisfactory returns from their digital marketing investments due to factors like poor targeting, constant algorithm changes, and limited budgets (Kotler & Keller, 2016; Chaffey & Ellis- Chadwick, 2019). A persistent concern is the inability to convert online visibility into measurable business success, raising doubts about the cost-efficiency of these strategies in driving long-term growth.

Automation has been widely recognized for its capacity to enhance operational efficiency and reduce costs. However, its implementation in SMEs is often hampered by high setup costs, compatibility issues with older systems, and employee resistance to change (Brynjolfsson & McAfee, 2017; Groover, 2019). Further investigation is needed to understand how automation affects cost savings while maintaining service quality and customer satisfaction. CRM systems are essential for building customer

loyalty through personalized interactions and predictive analytics (Buttle & Maklan, 2019; Payne & Frow, 2017). Still, many SMEs underutilize CRM data, resulting in poor customer retention. Integration challenges and the lack of data-driven decision-making continue to limit CRM effectiveness in securing long-term customer relationships.

Objectives

This study seeks to explore several critical aspects of technology adoption in SMEs, focusing on how e- commerce integration affects revenue growth, the impact of digital marketing on return on investment (ROI), the extent to which automation tools influence cost efficiency, and how customer relationship management (CRM) systems enhance customer retention rates. By addressing these questions, the research aims to provide a comprehensive understanding of the role these digital technologies play in improving SME.

Hypotheses

To meet these objectives, the study hypothesized that:

H_{o1}: E-commerce Integration has no significant impact on the Revenue Growth in SMEs.

H_{o2}: Digital Marketing has no significant impact on the Return on Investment (ROI) in SMEs.

H_{o3}: Automation Tools do not significantly impact the Cost Efficiency in SMEs.

H_{o4}: Customer Relationship Management (CRM) Systems do not significantly impact the Customer Retention Rate in SMEs.

Literature Review

Theoretical Framework

The Resource-Based View (RBV) theory was initially introduced by Wernerfelt in 1984 and later expanded by Jay Barney in 1991. This theory suggests that a company's competitive edge stems primarily from its unique internal resources and capabilities rather than external market conditions. According to RBV, organizations can boost profitability and grow their business by effectively utilizing valuable assets such as technology, skilled personnel, and innovation. This study embraces RBV as a valuable lens for understanding how SMEs can use digital technologies as strategic resources to drive profitability and expansion. Nonetheless, it also acknowledges RBV's limitations, particularly the necessity for SMEs to adapt continuously to external market forces alongside leveraging internal strengths.

The Diffusion of Innovation (DOI) Theory

The Diffusion of Innovation (DOI) theory, developed by Everett Rogers in 1962, explains how new technologies spread through social systems and organizations. Rogers identified five adopter categories: Innovators – Those who first embrace new technology. Early Adopters – Risk-takers willing to adopt innovations early. Early Majority – Those who adopt after benefits are proven. Late Majority – Adopters who wait until technology becomes essential. Laggards – Those resistant to change. This study regards DOI as helpful for understanding varying adoption rates among SMEs. However, it also recognizes that DOI alone does not fully capture the post-adoption financial and strategic challenges, necessitating complementary perspectives from RBV and the Technology Acceptance Model (TAM).

Empirical Review and Gap in the Literature

Empirical evidence from current studies aligns with the proposed hypotheses, highlighting the crucial role of e- commerce integration on revenue growth in SMEs, digital marketing on return on investment in SMEs, Automation Tools influence Cost Efficiency in SMEs and Customer Relationship Management (CRM) Systems in enhancing Customer Retention Rate in SMEs. For example, Laudon and Traver (2020) found that businesses that adopted e- commerce platforms experienced a 25-40% increase in annual revenue due to expanded market reach and improved accessibility for customers. Their findings align with Choshin and

Ghaffari (2017), who reported that SMEs with online sales channels generated higher revenue than those relying solely on traditional retail. They identified factors such as effective website functionality, secure digital payments, and supply chain integration as crucial to maximizing e-commerce benefits. The impact of digital marketing on return on investment (ROI) has been widely studied, with evidence suggesting that digital advertising strategies yield higher returns compared to traditional marketing approaches. Chaffey and Ellis-Chadwick (2019) examined digital marketing effectiveness and found that businesses leveraging SEO, social media marketing, and email campaigns recorded an average 32% increase in ROI. Their findings emphasize the cost- effectiveness of digital marketing in reaching target customers with measurable outcomes. Similarly, Dwivedi et al. (2021) analyzed AI-driven digital marketing and discovered that businesses that utilized predictive analytics and personalized customer engagement strategies saw substantial improvements in ROI. They found that automation in marketing enhances customer segmentation, improves lead conversion rates, and optimizes adverts spending.

The relationship between automation tools and cost efficiency in SMEs has been explored in various studies, with findings indicating that automation significantly

reduces operational costs. Brynjolfsson and McAfee (2017) reported that automation technologies, including chatbots, robotic process automation (RPA), and AI-driven analytics, led to a 20-35% reduction in operational expenses for SMEs. Their study highlighted that automation improves workflow efficiency, minimizes human errors, and reallocates labor to higher-value tasks. Groover (2019) found similar results in his study on robotic automation, where businesses using RPA for customer service and supply chain management reported a 40% decrease in labour costs. His study emphasized that automation enhances consistency in business operations, leading to sustainable cost savings.

Customer relationship management (CRM) systems have been identified as key drivers of customer retention in SMEs. Payne and Frow (2017) conducted a study on CRM effectiveness and found that businesses that adopted CRM platforms experienced a 15-25% increase in customer retention rates. They highlighted that CRM tools improve customer engagement, track purchase history, and enable personalized marketing strategies that enhance customer loyalty. Buttle and Maklan (2019) investigated CRM-based loyalty programs and discovered that businesses that implemented data-driven customer relationship initiatives saw a significant increase in repeat purchase behavior.

Despite a growing body of research on digital technology adoption, several critical gaps remain that require further exploration. Existing literature often generalizes findings across all SMEs, overlooking sector- specific dynamics in industries such as transportation, retail, manufacturing, and services. Although digital marketing is generally seen as advantageous, some studies (Ryan, 2020) show SMEs often struggle with ROI due to budget limitations and competition from larger firms, signaling a need for affordable and targeted marketing strategies. Furthermore, while automation can reduce costs, there is little insight into how SMEs can adopt it without negatively impacting workforce retention or employee development, highlighting the importance of strategies for reskilling. Geographically, much of the literature centers on developed countries, leaving a gap in understanding how SMEs in developing regions manage obstacles like inadequate funding, infrastructure, and inconsistent policy support. This review underscores the importance of digital technology in enhancing SME profitability and growth, while also revealing persistent challenges related to finance, competition, and sustainability (Olateju, 2023) Therefore, this study seeks to address these gaps by investigating the effects of digital technology adoption on profitability and business growth in SMEs, with attention to both enabling factors and post-adoption outcomes.

Methodology

The study adopted a survey research design to empirically explore the relationships among the variables under investigation. The descriptive survey design was chosen because it allows for collecting quantitative data from a broad population, helping to identify trends, connections, and patterns between the independent variable (digital technology adoption) and the dependent variables (profitability and business expansion). The study relied on primary data, collected through structured questionnaires. This approach was selected due to its effectiveness in capturing real-time responses and its relevance for observing current events and trends. The data collected from 367 SMEs in Lagos State determined using the Krejcie and Morgan (1970) and selected using purposive sampling procedure were cleaned and analysed using regression analysis with the aid of MS Excel.

Result and Interpretation

This study analyzed the demographic distribution of respondents across five key variables: This gender, age, educational qualifications, length of service and type of business to provide the context for understanding and interpreting the relationship between Digital Technology and Profitability/Business Expansion in SMEs. The demographic breakdown indicates that there were slightly more female participants, totaling 193 (52.59%), than male participants, who numbered 174 (47.41%). This reflects a relatively balanced gender representation, with a slight predominance of females. Regarding age distribution, the majority of respondents were between 25 and 30 years old, making up 144 individuals or 39.23% of the total sample. This group was followed by those under 25 years (25.07%), then respondents aged 31 to 35 years (18.26%), and those between 36 and 40 years (16.62%).

A small portion (0.82%) belonged to other unspecified age groups, indicating that most participants were relatively young adults. In terms of educational qualifications, the majority of respondents—195 individuals or 53.13%—held an HND or BSc degree, meaning that over half of the participants are graduates. This group was followed by those with ND/NCE certificates at 25.89%, WAEC/GCE/NECO holders at 11.72%, MSc/MBA degree holders at 8.45%, and a small minority with PhDs (0.82%). Overall, the data reflects a generally well- educated group of respondents. Regarding length of service, nearly half of the respondents (49.05%) have worked for 1 to 5 years, indicating that most participants are relatively early in their careers. This is followed by those with 6 to 10 years of experience (23.98%), 11 to 15 years (20.98%), and a smaller portion with over 15 years of service (5.99%), reflecting a workforce mainly composed of early to mid-career professionals. Regarding the type of business, respondents were fairly evenly distributed among service (26.16%), trading (25.61%), and other unspecified business types (25.89%). Manufacturing and wholesaling made up 11.99%,

while processing businesses had the smallest share at 10.35%. This indicates that the service and trading sectors are the most prominently represented among the participants.

Test of Hypotheses

Hypothesis One

H_0: E-commerce Integration has no significant impact on Revenue Growth in SMEs.

Table 1: Measure of the impact of E-commerce Integration on Revenue Growth in SMEs

Summary Output						
Regression Statistics						
Multiple R	0.3718					
R Square	0.1382					
Adjusted R Square	0.1359					
Standard Error	0.4470					
Observations	367					
ANOVA						
	Df	*SS*	*MS*	*F*	*Significance F*	
Regression	1	11.6996	11.69	58.543	1.79E-13	
Residual	365	72.9440	0.199			
Total	366	84.6435				
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.6943	0.3332	8.085	9.24E-15	2.039	3.3497
E-commerce Integration	0.4822	0.0630	7.651	1.79E-13	0.3582	0.6061

The regression analysis results show that E-commerce Integration has a moderate positive impact on the Revenue Growth in SMEs, with an R^2 value of 0.1382. This means that about 13.8% of the variation in revenue growth can be attributed to e-commerce integration. The F- statistic of 58.5428 and a significance F value of 1.79E-13 indicate that the overall regression model is statistically significant. The coefficient for e-commerce integration is 0.4822, suggesting that for every one-unit increase in e-commerce integration, revenue growth rises by approximately 0.482 units. The p-value, also 1.79E-13, is well below the 0.05 threshold, confirming the impact is statistically significant ($p < 0.05$).

Hypothesis Two

H_0: Digital Marketing has no significant impact on Return on Investment (ROI) in SMEs.

Table 2: Measure of the impact of Digital Marketing on the Return on Investment (ROI) in SMEs.

Summary Output	
Regression Statistics	
Multiple R	0.535
R Square	0.287
Adjusted R	0.285
Standard	0.419
Observations	367

ANOVA					
	df	*SS*	*MS*	*F*	*Significance F*
Regression	1	25.8185	25.8185	147.079	1.13E-28
Residual	365	64.0727	0.1755		
Total	366	89.891			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	1.6551	0.2913	5.6819	2.73E-08	1.0823	2.2280
Digital Marketing	0.6723	0.0554	12.1276	1.13E-28	0.5633	0.7813

The regression results reveal that Digital Marketing has a strong positive impact on the Return on Investment (ROI) in SMEs, with a Multiple R value of 0.5359. An R Square value of 0.2872 indicates that about 28.7% of the variation in ROI can be explained by Digital Marketing efforts. The Adjusted R Square of 0.2853 further suggests that the model fits the data reasonably well. With an F-statistic of 147.079 and a Significance F of 1.13E-28, the regression model is statistically significant. The coefficient for Digital Marketing stands at 0.6723, implying that a one-unit increase in Digital Marketing activities results in an increase of approximately 0.6723 units in ROI. The p-value of 1.13E-28, being far below 0.05, confirms that this impact is statistically significant ($p < 0.05$).

Hypothesis Three

H_0: Automation Tools do not significantly impact on Cost Efficiency in SMEs.

Table 3: Measure of the impact of Automation Tools on the Cost Efficiency in SMEs.

Summary Output						
Regression Statistics						
Multiple R	0.4786					
R Square	0.2290					
Adjusted R Square	0.2269					
Standard Error	0.4028					
Observations	367					
ANOVA						
	df	*SS*	*MS*	*F*	*Significance F*	
Regression	1	17.5948	17.5948	108.4351	2.09E-22	
Residual	365	59.2255	0.1623			
Total	366	76.8203				
	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	2.3079	0.2777	8.3110	1.89E- 15	1.7617	2.8538
Automation Tools	0.5467	0.05250	10.4132	2.09E- 22	0.4434	0.6499

The regression results suggest that the use of Automation Tools has a moderately positive impact on the Cost Efficiency in SMEs, with a Multiple R value of 0.4786. An R Square value of 0.2290 shows that around 22.9% of the variation in cost efficiency can be attributed to the use of automation tools. The Adjusted R Square value of 0.2269 confirms the model's reasonable explanatory strength. The F- statistic of 108.4351, alongside a Significance F of 2.09E-22, signifies that the regression model is statistically reliable. The regression coefficient for Automation Tools is 0.5467, meaning that a one- unit increase in automation tool usage is associated with a 0.547- unit improvement in cost efficiency. The P-value of 2.09E-22, being significantly below the 0.05 threshold, further confirms the statistical significance of the impact ($p < 0.05$).

Hypothesis Four

H_0: Customer Relationship Management (CRM) Systems do not significantly impact on Customer Retention Rate in SMEs.

Table 4: Measure of the impact of Customer Relationship Management (CRM) Systems on the Customer Retention Rate

Summary Output	
Regression Statistics	
Multiple R	0.3726
R Square	0.1389
Adjusted R Square	0.1365
Standard Error	0.3985
Observations	367

ANOVA					
	df	*S*	*MS*	*F*	*Significance F*
Regression	1	9.3490	9.3490	58.855	1.56E-13
Residual	365	57.9795	0.1588		
Total	366	67.3286			

	Coefficients	*Standard Error*	*t Stat*	*P-value*	*Lower 95%*	*Upper 95%*
Intercept	3.1326	0.2689	11.6499	6.97E-27	2.6039	3.6614
Customer Relationship Management (CRM) Systems	0.3894	0.0507	7.671715	1.56E-13	0.2896	0.4892

The regression analysis reveals that the use of Customer Relationship Management (CRM) systems has a moderate positive impact on the Customer Retention Rate in SMEs, indicated by a Multiple R value of 0.3726. The R Square value of 0.1388 suggests that CRM systems account for approximately 13.9% of the variability in customer retention. The Adjusted R Square of 0.1365, which accounts for the number of predictors in the model, confirms a similar level of explanatory power. The model's statistical significance is supported by an F-statistic of 58.8552 and a Significance F of 1.56E-13. The regression coefficient of 0.3894 implies that a one-unit increase in CRM system usage corresponds to an estimated 0.389 unit increase in customer retention. Furthermore, the p-value of 1.56E-13, being far below 0.05, indicates a statistically significant impact ($p < 0.05$).

Discussion

The results of this study highlight the significance of adopting digital technology tools on profitability and business expansion in SMEs. The result of hypothesis one on e-commerce integration and revenue growth in SMEs align with a growing body of research highlighting the critical role of e-commerce in improving SME business outcomes. Akanbi and Dada (2020) found that digital adoption through e- commerce platforms significantly enhanced market access and revenue growth among Nigerian SMEs. Their study showed that businesses effectively incorporating e-commerce enjoyed greater profitability and customers' engagement compared to those that did not. This is also in line with the findings of Chen and Zhang (2019) that reported that e-commerce adoption accelerated revenue growth by expanding market reach and improving inventory management. Similarly, Olowu and Fasanya (2021) from the findings of their study on digital transformation's effects on SMEs in South-West Nigeria concluded that SMEs prioritizing digital integration demonstrated higher resilience and adaptability in changing markets. Hypothesis two on digital marketing and return on investment (ROI) in SMEs highlights a highly significant association between digital marketing and ROI in SMEs. These findings are consistent with prior studies examining digital marketing's influence on business success. (Eze, Chinedu, and Bello, 2019, Johnson and Khalid, 2020) observed that using platforms like Facebook Adverts and Google Analytics experienced better brand visibility, customer acquisition, and ROI, highlighting how digital marketing optimizes marketing spend and boosts returns. Nwachukwu and Daramola (2021) studied SMEs in Lagos State and concluded that firms with well-structured digital marketing strategies outperformed those relying on traditional advertising, especially when integrating performance tracking tools to align efforts with ROI goals.

From hypothesis three, there is a significant link between the adoption of automation tools and enhanced cost efficiency among SMEs. These outcomes are in alignment with earlier empirical research. Adebayo and Yusuf (2019), for instance, discovered that Nigerian SMEs using automation solutions such as digital accounting, inventory management, and workflow systems, experienced considerable reductions in operating expenses. Their research emphasized that automation improves efficiency by lowering labor costs, minimizing human error, and optimizing the use of available resources. In a related study, Zhang and Wu (2020) examined Chinese SMEs and found that automation tools led to shorter production cycles and less material waste. Their findings revealed that automation not only reduced costs but also improved process consistency, enhancing organizational performance.

Finally, hypothesis four on Customer Relationship Management (CRM) Systems and Customer Retention Rate in SMEs, the regression analysis offers strong support for rejecting the null hypothesis. These findings are well-supported by previous research.

For instance, Adeola and Evans (2019) reported that CRM systems significantly improved customer satisfaction and loyalty in Nigerian SMEs. Their study found that features such as automated follow-ups, feedback collection, and streamlined sales processes helped businesses build stronger, more enduring customer relationships. Lin and Chen (2020), in their study of Taiwanese SMEs reemphasized the importance of real- time analytics and personalized communication in anticipating and meeting customer expectations.

Conclusion

This study looked into how the use of digital technology affected the growth and profitability of small and medium-sized businesses (SMEs) in Lagos State. The findings demonstrated that a number of performance metrics, including revenue growth, return on investment (ROI), cost effectiveness, and customer retention, are considerably improved by the strategic use of digital tools, such as e-commerce platforms, digital marketing, automation technologies, and customer relationship management (CRM) systems. The results confirm that for SMEs functioning in the rapidly changing digital economy of today, adopting digital technology is a critical factor in determining their competitiveness and long-term viability. In order to fully profit from digital transformation, SMEs must modernise their operations immediately, according to the report.

Research Contributions

The study offers factual support for the link between better business performance in SMEs in developing nations and the adoption of digital technology. By concentrating on SMEs in Lagos State, one of Nigeria's most economically active regions, it also adds to the body of knowledge already in existence. By breaking out the effects of various technologies (e-commerce, digital marketing, automation, CRM), the study provides more detail on how particular tools influence particular facets of business success. Regression analysis and the sampling strategy developed by Krejcie and Morgan (1970) are used to strengthen methodological rigour in SME-based digital transformation studies.

Implications of the findings

The implication of the findings revealed that government organisations and SME development authorities ought to offer focused assistance, financial incentives, and regulations that promote SMEs' digital transformation, including granting access to reasonably priced technology and internet infrastructure. Also the study revealed that digital innovation is not merely a fad, it is a strategic need that managers and owners of SMEs must embrace. Real-world implication is that, investing in solutions like automation systems and CRM software can result in noticeable increases in

productivity and client satisfaction. To guarantee that these tools are used appropriately, there is an urgent need for organised training programmes targeted at enhancing digital literacy among SME operators and their staff.

Technology providers have an opportunity to tailor solutions for SMEs by developing user-friendly, affordable, and scalable digital products that meet the needs of small businesses.

References

Adebayo, K. A., & Yusuf, A. A. (2019). Automation and cost management practices in Nigerian SMEs. *Journal of Small Business and Operations, 5*(2), 44–57.

Adeola, O., & Evans, O. (2019). CRM systems and customer loyalty among Nigerian SMEs. *International Journal of Marketing and Business Strategy, 6*(2), 45–58.

Akanbi, T. A., & Dada, O. B. (2020). The impact of e-commerce adoption on business performance of SMEs in Nigeria. *Journal of Small Business and Enterprise Development, 27*(4), 543–560.

Brynjolfsson, E., & McAfee, A. (2017). *Machine, platform, and crowd: Harnessing our digital future.* W. W. Norton & Company.

Buttle, F., & Maklan, S. (2019). *Customer Relationship Management: Concepts and Technologies* (3rd ed.). Routledge.

Chaffey, D., & Smith, P. R. (2022). *Digital Marketing Excellence: Planning, Optimizing, and Integrating Online Marketing* (6th ed.). Routledge.

Chen, J., & Zhang, R. (2019). E-commerce adoption and business performance among SMEs: Evidence from China. *Electronic Commerce Research and Applications, 36*, 100867.

Choshin, M., & Ghaffari, A. (2017). *An investigation of the impact of e-commerce on SMEs performance.* Journal of Business & Retail Management Research, 11(2), 99-107.

Davenport, T. H., & Ronanki, R. (2018). *Artificial Intelligence for the Real World*. Harvard Business Review, 96(1), 108-116.

Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., & Williams, M. D. (2021). *Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice, and policy.* International Journal of Information Management, 57, 102289.

Eze, S. C., Chinedu, C., & Bello, A. M. (2019). Digital marketing adoption and return on investment in SMEs: Evidence from Nigeria. *International Journal of Small Business and Entrepreneurship Research, 7*(1), 32–45.

Groover, M. P. (2019). *Automation, production systems, and computer-integrated manufacturing* (5th ed.). Pearson.

Johnson, K. L., & Khalid, N. (2020). Effect of digital marketing tools on ROI in Malaysian SMEs. *Asia Pacific Journal of Marketing and Logistics, 32*(4), 876–894.

Kotler, P., & Keller, K. L. (2020). *Marketing Management* (15th ed.). Pearson.

Krejcie, R. V., & Morgan, D. W. (1970). *Determining Sample Size for Research Activities*. Educational and Psychological Measurement, 30(3), 607-610.

Laudon, K. C., & Traver, C. G. (2020). *E-commerce 2020: Business, technology, society* (16th ed.). Pearson.

Lin, C., & Chen, Y. (2020). Exploring CRM impact on SME customer retention in Taiwan. *Journal of Small Business Management, 58*(4), 725–743.

Nwachukwu, J. C., & Daramola, A. O. (2021). Evaluating the impact of digital marketing on SME investment returns: A Lagos State perspective. *Nigerian Journal of Business and Economic Research, 9*(3), 56–70.

Olateju, A. O. (2024). An assessement of the impact of Digital Technology (DT) on Small and Medium Enterprises (SMEs): A case study of some selected SMEs in Lagos, Nigeria. International Journal of Sustainable Applied Sciences. 2 (1), 41 – 52.

Olowu, B. A., & Fasanya, I. O. (2021). Digital transformation and growth of small businesses in Nigeria: The mediating role of e-commerce. *Nigerian Journal of Management Sciences, 12*(2), 45–59.

Payne, A., & Frow, P. (2017). *Strategic customer management: Integrating relationship marketing and CRM.* Cambridge University Press.

Ryan, D. (2020). *Digital marketing: Growth strategies for SMEs.* Kogan Page.

Turban, E., Pollard, C., & Wood, G. (2020). *E-commerce: A Managerial Perspective* (8th ed.). Pearson.

Wernerfelt, B. (1984). *A resource-based view of the firm*. Strategic Management Journal, 5(2), 171-180.

Wiersma, W. (2009). *Research Methods in Education: An Introduction* (9th ed.). Pearson Education.

Zhang, Y., & Wu, L. (2020). Automation and cost reduction strategies in Chinese SMEs. *Journal of Business Technology and Innovation, 11*(2),120–133.