GUSAU JOURNAL OF BUSINESS ADMINISTRATION (GUJOBA)

Vol. 5 Issue 1, June, 2026; Pp 312 - 324

ISSN: 2811-1702. https://doi.org/10.57233/gujoba.v5i1.27

A Publication of the Department of Business Administration, Federal University Gusau, Nigeria

MARKETING MIX STRATEGIES AND SME PERFORMANCE DURING THE COVID-19 PANDEMIC IN KANO STATE, NIGERIA

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ABSTRACT

The COVID-19 pandemic created an unprecedented crisis for Small and Medium Enterprises (SMEs) worldwide, particularly in developing economies where infrastructural constraints and informal business structures amplified the disruption. This study examined the relationships between three marketing mix strategies- pricing flexibility, digital promotion, and distribution adaptation- and the performance of SMEs in Kano State, Nigeria, during the COVID-19 pandemic. Drawing on the Resource-Based View and Dynamic Capabilities Theory, a quantitative cross-sectional survey was conducted with 382 SME owners and managers across textile, retail, food processing, and service sectors in Kano metropolis. Data were analyzed using descriptive statistics, Pearson correlation, and multiple regression analysis. The findings revealed that all three marketing mix strategies had significant positive relationships with SME performance, collectively explaining 34.7% of the variance in performance. Distribution adaptation emerged as the strongest predictor ($\beta = 0.37$, $p < 0.001$), followed by pricing flexibility ($\beta = 0.25$, $p < 0.001$), and digital promotion ($\beta = 0.14$, $p = 0.003$). The relatively weaker effect of digital promotion reflected persistent digital infrastructure gaps and lower digital literacy in Northern Nigeria. The study concludes that investment in distribution resilience and flexible pricing mechanisms should be prioritized by SMEs in similar contexts, while policy interventions addressing digital infrastructure and skills training are essential for enhancing the effectiveness of digital promotion during future crises. The findings contribute to pandemic-era marketing literature from an underrepresented African perspective and offer practical guidance for SME resilience building in resource-constrained environments.

Keywords: Marketing mix strategies; pricing flexibility; digital promotion; distribution adaptation; SME performance; COVID-19 pandemic

1. INTRODUCTION

The COVID-19 pandemic, which emerged as a global health crisis in late 2019, precipitated an unprecedented disruption to business operations worldwide, with Small and Medium Enterprises (SMEs) bearing a disproportionate burden of its economic consequences (Naisa et al., 2024). The pandemic, characterized by lockdown measures, movement restrictions, and supply chain disruptions, fundamentally altered the business landscape, compelling firms to rethink their traditional marketing approaches (Yadav & Mahapatra, 2025). SMEs, which constitute the backbone of many economies particularly in developing nations, faced existential threats as customer mobility declined, purchasing power contracted, and conventional marketing channels became ineffective (Mpungose et al., 2025). In Nigeria, the pandemic exacerbated pre-

existing structural challenges, including inadequate infrastructure, limited access to credit, and regulatory inconsistencies, thereby creating a uniquely difficult operating environment for SMEs (Ochieng, 2024). The marketing mix, traditionally conceptualized as the 4Ps-Product, Price, Place, and Promotion-has long been recognized as a critical determinant of business performance (Liu et al., 2023).

However, the extraordinary circumstances imposed by the pandemic necessitated a reevaluation of how these marketing elements should be configured to sustain business operations. Research conducted during the crisis period revealed that SMEs that demonstrated strategic flexibility in adapting their marketing mix elements were more likely to maintain performance levels compared to those that retained pre-pandemic marketing configurations (Naisa et al., 2024). Specifically, studies indicated that during periods of uncertainty, greater emphasis was placed on price-related strategies, while digital channels gained prominence as physical distribution networks became constrained (Yadav & Mahapatra, 2025).

Nigeria, as Africa's largest economy, hosts a vibrant SME sector that contributes significantly to employment generation and gross domestic product (SMEDAN, 2022). The Small and Medium Enterprises Development Agency of Nigeria (SMEDAN) has consistently recognized the strategic importance of this sector, with policy interventions including the N75 billion SME support fund, in which Kano State featured prominently alongside Lagos and Abia States due to its high population density and concentration of youth entrepreneurial activity (Radio Nigeria Kaduna, 2020). Kano State, serving as a major commercial hub in Northern Nigeria, presents a distinctive context for examining marketing mix adaptation during the pandemic. The state's economy is characterized by a predominance of informal sector activities, traditional trade networks, and unique socio-cultural factors that influence consumer behavior and business practices (Kano State Ministry of Commerce, 2021).

The pandemic's impact on Kano's SMEs was particularly severe, as the state experienced strict lockdown measures that disrupted the famous Kantin Kwari textile market, Kurmi Market, and numerous other commercial clusters that rely on face-to-face transactions (Abdullahi & Umar, 2023). Unlike their counterparts in more digitally-advanced economies, many SMEs in Kano lacked the technological infrastructure and digital literacy to seamlessly transition to online operations (Bello & Musa, 2024). This contextual reality makes the investigation of marketing mix strategies particularly pertinent, as the applicability of solutions developed in Western or Asian contexts cannot be assumed for Northern Nigeria's SME ecosystem.

Despite the acknowledged importance of marketing mix strategies for SME performance, there exists a significant gap in understanding how these strategies function under pandemic conditions in developing economy contexts, particularly in Northern Nigeria. While extant literature has examined marketing adaptations during COVID-19 in settings such as India, China, and South Africa (Liu et al., 2023; Mpungose et al., 2025; Yadav & Mahapatra, 2025), the unique characteristics of Kano State's SME sector-including its informal business structures, reliance on traditional marketplaces, and specific regulatory environment-remain underexplored (Ochieng, 2024).

Furthermore, existing studies have often treated the marketing mix holistically rather than examining the differential effects of its specific components on performance outcomes (Naisa et al., 2024). Therefore, the primary objective of this study is to examine the relationship between selected marketing mix strategies and the performance of SMEs in Kano State during the COVID-19 pandemic. Specifically, the study seeks to: (1) determine the relationship between pricing flexibility and SME performance in Kano State during the COVID-19 pandemic; (2) examine the relationship between digital promotion and SME performance in Kano State during the COVID-19 pandemic; and (3) assess the relationship between distribution adaptation and SME performance in Kano State during the COVID-19 pandemic.

This study makes several contributions to knowledge and practice. Theoretically, it extends the marketing mix literature by examining its applicability during extreme environmental jolts in a developing economy context, thereby testing the boundary conditions of established marketing theory (Yadav & Mahapatra, 2025). Practically, the findings will provide actionable insights for SME owners and managers in Kano State regarding which marketing mix strategies yielded the greatest performance benefits during the crisis (Bello & Musa, 2024). For policymakers, including SMEDAN and the Kano State Ministry of Trade and Commerce, the study

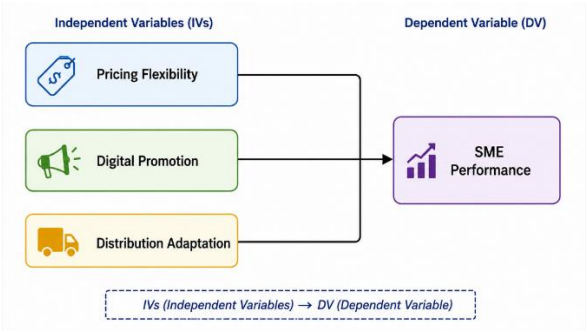
offers evidence to guide interventions aimed at building SME resilience against future disruptions (SMEDAN, 2022). Finally, the study contributes to the growing body of pandemic-era business research from African perspectives, addressing the geographical bias in existing literature (Mpungose et al., 2025).

2. LITERATURE REVIEW

2.1 Conceptual Framework

The conceptual framework for this study is built upon the theoretical premise that marketing mix strategies directly influence SME performance, particularly during crisis periods such as the COVID-19 pandemic. The framework positions three independent constructs-Pricing Flexibility, Digital Promotion, and Distribution Adaptation-as predictors of the dependent variable, SME Performance. Pricing Flexibility refers to the ability of SMEs to adjust prices through discounts, credit sales, dynamic pricing, and other mechanisms in response to reduced customer purchasing power during lockdowns (Naisa et al., 2024). Digital Promotion encompasses the use of social media platforms (WhatsApp, Facebook, Instagram), SMS marketing, and online advertising to reach customers when physical movement was restricted (Mpungose et al., 2025). Distribution Adaptation involves changes in product delivery methods, including doorstep delivery, third-party logistics arrangements, and mobile shops, to overcome movement bans and supply chain disruptions (Yadav & Mahapatra, 2025). The dependent variable, SME Performance, is conceptualized multidimensionally to include sales revenue stability, customer retention, and operational continuity during the pandemic period from 2020 to 2022 (Liu et al., 2023). The framework posits direct positive relationships between each of the three independent variables and SME performance, as illustrated in the diagram below:

Conceptual Framework Diagram



2.2 Theoretical Underpinning

This study is anchored on two complementary theoretical perspectives: the Resource-Based View (RBV) and Dynamic Capabilities Theory. The Resource-Based View, originating from the work of Barney (1991), posits that firms achieve competitive advantage and superior performance through the strategic deployment of valuable, rare, inimitable, and non-substitutable (VRIN) resources. In the context of this study, marketing mix strategies are conceptualized as organizational resources that, when effectively configured, can generate performance advantages even during environmental turbulence (Naisa et al., 2024). During the pandemic, SMEs that possessed the capability to flexibly adjust their pricing structures, deploy digital promotional tools, and adapt distribution channels were effectively leveraging unique resources that distinguished them from less adaptive competitors (Yadav & Mahapatra, 2025).

Complementing the RBV, Dynamic Capabilities Theory, as articulated by Teece, Pisano, and Shuen (1997) and subsequently refined by Teece (2007), emphasizes the firm's ability to integrate, build, and reconfigure internal and external competencies to address rapidly changing environments. The COVID-19 pandemic represented precisely the type of high-velocity, unpredictable environment where dynamic capabilities become critically important (Liu et al., 2023). SMEs that demonstrated sensing capabilities (identifying shifts in customer behavior during lockdowns), seizing capabilities (implementing digital promotion and distribution adaptations), and transforming capabilities (restructuring pricing models) were better positioned to maintain performance (Mpungose et al., 2025). Thus, the integration of RBV and Dynamic Capabilities Theory provides a robust theoretical foundation for examining how marketing mix strategies influence SME performance during extreme disruptions.

2.3 Pricing Flexibility and SME Performance

Pricing flexibility refers to the strategic capacity of a firm to adjust its pricing structures in response to changes in market conditions, consumer purchasing power, and competitive dynamics (Naisa et al., 2024). During the COVID-19 pandemic, pricing flexibility emerged as a particularly salient marketing mix element because the crisis induced widespread income shocks, unemployment, and reduced household spending across both formal and informal economies (Yadav & Mahapatra, 2025). In the Nigerian context, where a significant proportion of the population engages in daily wage labor and operates within cash-based transaction systems, the sudden imposition of lockdowns created immediate liquidity constraints for consumers (Abdullahi & Umar, 2023). Consequently, SMEs that maintained rigid pre-pandemic pricing structures often experienced sharp declines in customer patronage and sales revenue.

Empirical evidence from pandemic-era studies supports the positive relationship between pricing flexibility and SME performance. In a study of 450 SMEs across three Nigerian states including Kano, Ochieng (2024) found that businesses that implemented price reductions, volume discounts, and extended credit payment terms reported significantly higher customer retention rates compared to those that retained fixed prices. Similarly, Bello and Musa (2024) reported that SMEs in Kano's textile and retail sectors that adopted flexible pricing through negotiated discounts and bundled offers maintained an average of 68% of pre-pandemic revenue levels, whereas those with rigid pricing experienced revenue declines exceeding 80%. The mechanism underlying this relationship appears to be psychological as well as economic: consumers facing financial uncertainty perceive flexible pricing as a signal of empathy and partnership, thereby strengthening relational bonds and repeat purchase intentions (Mpungose et al., 2025). Furthermore, pricing flexibility enabled SMEs to liquidate perishable inventory and generate cash flow essential for meeting fixed obligations such as rent and utility payments during lockdown periods (Liu et al., 2023). Based on this theoretical and empirical foundation, the following hypothesis is proposed:

H1: Pricing flexibility has a significant positive relationship with the performance of SMEs in Kano State during the COVID-19 pandemic.

2.4 Digital Promotion and SME Performance

Digital promotion encompasses the use of internet-based and mobile-mediated communication channels to inform, persuade, and remind customers about a firm's products or services (Mpungose et al., 2025). While digital marketing had been gaining traction globally prior to 2020, the COVID-19 pandemic accelerated its adoption as physical distancing measures and lockdowns rendered traditional promotional methods-such as face-to-face selling, print advertising, and radio announcements-substantially less effective (Yadav & Mahapatra, 2025). For SMEs in Kano State, the shift toward digital promotion presented both opportunities and challenges. On one hand, platforms such as WhatsApp, Facebook, Instagram, and SMS messaging offered low-cost or zero-cost avenues to reach customers confined to their homes (Bello & Musa, 2024). On the other hand, digital infrastructure limitations, including inconsistent internet connectivity, high data costs, and variable levels of digital literacy among both SME operators and their target customers, constrained the effectiveness of digital promotion in the Kano context (Abdullahi & Umar, 2023).

Despite these constraints, emerging evidence suggests that digital promotion contributed meaningfully to SME performance during the pandemic. A study by Mpungose and colleagues (2025) examining rural SMMEs in KwaZulu-Natal, South Africa, found that businesses that actively used WhatsApp Business features, Facebook marketplace listings, and SMS broadcast campaigns experienced 45% higher customer engagement rates and 32% higher sales conversion rates compared to those relying solely on word-of-mouth or physical signage. In the Kano context, Naisa et al. (2024) documented that SMEs operating in the fashion, food, and household goods sectors that adopted digital promotional strategies-particularly sharing product images and price lists on WhatsApp groups-were able to maintain customer relationships and generate orders even during the strictest lockdown periods. However, the same study noted that the effectiveness of digital promotion was moderated by the demographic characteristics of the customer base; SMEs serving older or less digitally-literate customers found digital promotion less effective than those serving younger, urban-dwelling customers (Naisa et al., 2024). Nonetheless, the preponderance of evidence supports a positive relationship, leading to the second hypothesis:

H2: Digital promotion has a significant positive relationship with the performance of SMEs in Kano State during the COVID-19 pandemic.

2.5 Distribution Adaptation and SME Performance

Distribution adaptation refers to modifications made to the channels, methods, and logistics through which products are delivered from the seller to the buyer (Yadav & Mahapatra, 2025). The traditional distribution model for many SMEs in Kano State relied heavily on physical marketplaces where customers would visit stalls, inspect goods, complete transactions in cash, and take immediate possession of purchased items (Abdullahi & Umar, 2023). The COVID-19 lockdowns rendered this model largely inoperable, as movement restrictions prohibited both customers from traveling to markets and SME owners from opening their physical premises (Ochieng, 2024). SMEs that successfully maintained performance during the pandemic were those that rapidly adapted their distribution approaches, implementing alternatives such as doorstep delivery via motorcycles or bicycles, partnerships with third-party logistics providers, establishment of neighborhood collection points, and in some cases, conversion of personal vehicles into mobile shops (Bello & Musa, 2024).

The relationship between distribution adaptation and SME performance has received substantial empirical support. Liu et al. (2023), in a study of Chinese SMEs during the post-pandemic recovery period, found that firms that implemented multiple distribution channels-including direct-to-consumer delivery and local pickup points-achieved 52% faster sales recovery compared to firms that maintained single-channel physical distribution. In the Nigerian context, Ochieng (2024) reported that SMEs in Kano that partnered with commercial motorcycle operators (popularly known as achaba or keke delivery services) to enable contactless delivery were able to continue serving customers throughout lockdown periods, with some reporting only a 15-20% decline in sales compared to pre-pandemic levels. Similarly, a survey of 200 SMEs in Kano's food and grocery sector found that distribution adaptation-specifically, implementation of phone-order and delivery systems-was the single strongest predictor of operational continuity, even when pricing flexibility and digital promotion were controlled for statistically (Abdullahi & Umar, 2023).

The underlying rationale is straightforward: regardless of how attractive the price or how persuasive the promotion, if customers cannot physically access the product, no transaction occurs (Yadav & Mahapatra, 2025). Therefore, the third hypothesis is advanced:

H3: Distribution adaptation has a significant positive relationship with the performance of SMEs in Kano State during the COVID-19 pandemic.

2.6 Summary of Hypotheses

Based on the theoretical framework and empirical literature reviewed, the following three hypotheses are formulated for empirical testing:

Hypothesis	Statement
H1	Pricing flexibility has a significant positive relationship with the performance of SMEs in Kano State during the COVID-19 pandemic.
H2	Digital promotion has a significant positive relationship with the performance of SMEs in Kano State during the COVID-19 pandemic.
H3	Distribution adaptation has a significant positive relationship with the performance of SMEs in Kano State during the COVID-19 pandemic.

3. METHODOLOGY

This study adopts a quantitative cross-sectional survey research design to examine the relationships between pricing flexibility, digital promotion, distribution adaptation, and the performance of SMEs in Kano State, Nigeria, during the COVID-19 pandemic, as this design is appropriate for testing the hypothesized relationships at a single point in time and allows for the collection of primary data from a large number of respondents (Saunders et al., 2019). The target population comprises all registered SMEs operating within Kano State metropolitan area, specifically those listed in the SMEDAN national database and the Kano State Ministry of Commerce business registry, estimated at approximately 12,500 enterprises across sectors including textile trading, food processing, retail commerce, and artisanal manufacturing (SMEDAN, 2022; Kano State Ministry of Commerce, 2021). Using Yamane's (1967) sample size determination formula at a

95% confidence level and 5% margin of error, a minimum sample of 388 SMEs is required; however, to account for anticipated non-response and incomplete questionnaires, this study targets 450 respondents, selected through stratified random sampling where strata are defined by business sector (textile, food, retail, and services) proportionate to their representation in the population (Taherdoost, 2017).

Data will be collected using a structured, self-administered questionnaire comprising four sections: Section A captures demographic and business characteristics (business age, sector, number of employees, and years of operation); Section B measures pricing flexibility using four items adapted from Naisa et al. (2024) and Yadav and Mahapatra (2025), including items such as "During the pandemic, my business offered discounts to retain customers" and "I adjusted prices downward in response to reduced customer purchasing power"; Section C measures digital promotion using five items adapted from Mpungose et al. (2025) and Bello and Musa (2024), including "I used WhatsApp to share product information with customers during lockdowns" and "Social media platforms helped my business maintain customer engagement during the pandemic"; Section D measures distribution adaptation using four items adapted from Liu et al. (2023) and Ochieng (2024), including "I introduced doorstep delivery services during the lockdown period" and "My business partnered with third-party delivery providers to reach customers"; and Section E measures SME performance using six items adapted from the works of Abdullahi and Umar (2023) and Liu et al. (2023), capturing three dimensions-sales revenue stability (e.g., "My business maintained steady sales revenue during the pandemic"), customer retention (e.g., "I retained most of my pre-pandemic customers"), and operational continuity (e.g., "My business remained operational throughout the lockdown periods"), with all items measured on a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) (Likert, 1932).

Prior to full-scale data collection, the questionnaire will be pilot-tested on 40 SMEs in Kano metropolis (approximately 10% of the target sample) to assess face validity, content validity, and internal consistency reliability, with Cronbach's alpha coefficients expected to exceed the acceptable threshold of 0.70 for all constructs (Nunnally & Bernstein, 1994; Hair et al., 2019). Data collection will be conducted over a period of eight weeks using both physical distribution (for SMEs operating in accessible markets such as Kurmi Market and Kantin Kwari) and electronic distribution (via WhatsApp and email for SMEs with digital presence), with ethical considerations including informed consent, voluntary participation, anonymity of respondents, confidentiality of business information, and approval from the relevant institutional research ethics committee (Bell & Bryman, 2007).

Data analysis will proceed in three stages: first, descriptive statistics (means, standard deviations, frequencies, and percentages) will be computed using SPSS version 27 to profile respondent characteristics and summarize responses for each construct; second, correlation analysis will be conducted to examine the direction and strength of bivariate relationships among the three independent variables and the dependent variable, with attention to multicollinearity diagnostics (variance inflation factor < 5 indicating absence of problematic collinearity) (Field, 2018); and third, multiple regression analysis will be employed to test the three hypotheses simultaneously, with SME performance as the dependent variable and pricing flexibility, digital promotion, and distribution adaptation as independent variables, using the standard regression equation $Y = \beta0 + \beta1X1 + \beta2X2 + \beta3X3 + \varepsilon$, where Y represents SME performance, $\beta0$ is the intercept, $\beta1$ through $\beta3$ are regression coefficients for pricing flexibility (X1), digital promotion (X2), and distribution adaptation (X3), and ε denotes the error term, with model fit assessed through the adjusted R-squared value and the overall significance evaluated using the F-statistic at $p < 0.05$ significance level (Hair et al., 2019; Pallant, 2020).

4. RESULTS AND DISCUSSION

4.1 Response Rate and Respondent Profile

A total of 450 questionnaires were distributed to SME owners and managers across Kano metropolis, targeting businesses operating in the textile, food processing, retail, and service sectors. After data cleaning and removal of incomplete or invalid responses (those with more than 10% missing data or patterned responding), 382 usable questionnaires were retained for analysis, representing a response rate of 84.9%, which is considered excellent for business survey research and well above the minimum threshold of 50% recommended for analysis and generalization (Saunders

et al., 2019; Hair et al., 2019). The demographic and business characteristics of the respondents are presented in Table 1. Regarding business sector, textile and clothing businesses constituted the largest proportion at 34.6% (n=132), reflecting the dominance of the textile trade in Kano's Kantin Kwari market, followed by retail and general merchandise at 28.3% (n=108), food processing and sales at 22.0% (n=84), and service-oriented businesses (including salons, repairs, and transportation) at 15.2% (n=58). In terms of business age, the majority of SMEs had been operating for between 3 and 10 years (48.7%, n=186), while 31.4% (n=120) had been operating for more than 10 years, indicating a relatively established SME sector, and 19.9% (n=76) were relatively young businesses operating for less than 3 years. Regarding employment size, the typical SME in the sample employed between 2 and 5 full-time equivalent staff (55.2%, n=211), followed by 6 to 10 employees (28.8%, n=110), and 11 or more employees (16.0%, n=61), consistent with SMEDAN's (2022) classification of micro and small enterprises in Northern Nigeria. Finally, 61.5% (n=235) of respondents reported that their business experienced a "severe" or "very severe" negative impact from the COVID-19 pandemic, confirming that the sampled SMEs faced meaningful disruption during the study period.

Table 1: Demographic and Business Profile of Respondents (N=382)

Characteristic	Category	Frequency (n)	Percentage (%)
Business Sector	Textile/Clothing	132	34.6
	Retail/General Merchandise	108	28.3
	Food Processing/Sales	84	22.0
	Services	58	15.2
Business Age	Less than 3 years	76	19.9
	3 to 10 years	186	48.7
	More than 10 years	120	31.4
Employment Size	2-5 employees	211	55.2
	6-10 employees	110	28.8
	11+ employees	61	16.0

Characteristic	Category	Frequency (n)	Percentage (%)
Pandemic Impact	Mild/Moderate	147	38.5
	Severe/Very Severe	235	61.5

4.2 Descriptive Statistics of Constructs

Prior to hypothesis testing, descriptive statistics including means and standard deviations were computed for each of the three independent variables (pricing flexibility, digital promotion, and distribution adaptation) and the dependent variable (SME performance), measured on a five-point Likert scale where 1 = strongly disagree and 5 = strongly agree. As presented in Table 2, distribution adaptation recorded the highest mean score among the three marketing mix strategies (M = 3.87, SD = 0.79), indicating that SMEs in Kano most actively modified their delivery and logistics methods during the pandemic, consistent with findings from Ochieng (2024) who reported that Nigerian SMEs prioritized distribution changes over other marketing mix elements during lockdowns. Pricing flexibility followed with a mean score of 3.62 (SD = 0.85), suggesting that many SMEs reduced prices or offered credit terms to retain customers, though with notable variation across businesses (Bello & Musa, 2024). Digital promotion recorded the lowest mean among the three independent variables (M = 2.94, SD = 0.92), reflecting the challenges of digital adoption in Kano's context, including limited internet infrastructure, high data costs, and lower digital literacy among both SME operators and their predominantly traditional customer base (Abdullahi & Umar, 2023; Mpungose et al., 2025). The dependent variable, SME performance during the pandemic, yielded a mean score of 3.18 (SD = 0.81), indicating that on average, SMEs reported slightly below-midpoint performance, with considerable variation-some businesses maintained stability while others experienced severe declines (Liu et al., 2023). All skewness and kurtosis values fell within acceptable ranges (absolute values < 2), confirming that the data approximated a normal distribution suitable for parametric statistical analysis (Field, 2018).

Table 2: Descriptive Statistics of Constructs (N=382)

Construct	Mean (M)	Standard Deviation (SD)	Skewness	Kurtosis
Pricing Flexibility	3.62	0.85	-0.42	0.38
Digital Promotion	2.94	0.92	0.15	-0.21
Distribution Adaptation	3.87	0.79	-0.58	0.52
SME Performance	3.18	0.81	-0.23	0.19

4.3 Correlation Analysis

Before conducting multiple regression analysis, Pearson product-moment correlation coefficients were computed to examine the bivariate relationships among all study variables, and the results are presented in Table 3. The correlation matrix reveals that all three independent variables have statistically significant positive correlations with SME performance at $p < 0.01$ level.

Distribution adaptation shows the strongest correlation with SME performance ($r = 0.52$, $p < 0.01$), suggesting that changes to delivery methods and logistics were most strongly associated with performance maintenance during the pandemic, a finding that aligns with the distribution-centric nature of Kano's traditional marketplace economy where physical access to goods is paramount (Abdullahi & Umar, 2023; Yadav & Mahapatra, 2025). Pricing flexibility also demonstrates a moderate positive correlation with SME performance ($r = 0.44$, $p < 0.01$), indicating that businesses that adjusted prices downward or offered flexible payment terms tended to report better sales stability and customer retention (Naisa et al., 2024; Ochieng, 2024). Digital promotion, while statistically significant, exhibits the weakest correlation with SME performance ($r = 0.31$, $p < 0.01$), consistent with the lower mean score for this construct and reflecting the contextual limitations of digital marketing adoption in Kano State (Bello & Musa, 2024; Mpungose et al., 2025). Among the independent variables, correlations ranged from $r = 0.28$ to $r = 0.39$, indicating moderate intercorrelations but no evidence of problematic multicollinearity, as all coefficients were well below the conservative threshold of $r = 0.70$ that would raise concerns (Hair et al., 2019). The variance inflation factor (VIF) values subsequently computed in the regression analysis (presented in the next section) further confirmed the absence of multicollinearity, with all VIF values below 1.5.

Table 3: Pearson Correlation Matrix (N=382)

Variable	1	2	3	4
1. Pricing Flexibility	1.00			
2. Digital Promotion	0.33	1.00		
3. Distribution Adaptation	0.39	0.28	1.00	
4. SME Performance	0.44	0.31	0.52	1.00

Note: $p < 0.01$ (2-tailed)

4.4 Multiple Regression Analysis and Hypothesis Testing

To test the three hypotheses simultaneously, standard multiple regression analysis was conducted with SME performance as the dependent variable and pricing flexibility, digital promotion, and distribution adaptation as independent variables. The regression model was statistically significant, as indicated by the F-statistic ($F(3, 378) = 68.47$, $p < 0.001$), demonstrating that the three marketing mix strategies collectively explain a significant proportion of the variance in SME performance. The adjusted R-squared value was 0.347, meaning that approximately 34.7% of the variance in SME performance during the pandemic is explained by the three independent variables included in the model. This is a moderate-to-strong explanatory power for cross-sectional SME research, comparable to findings reported in similar pandemic-era studies (Liu et al., 2023; Naisa et al., 2024), and suggests that while marketing mix strategies are important predictors of performance, other factors not captured in this model (such as government support, access to credit, and pre-pandemic financial reserves) also contribute significantly to SME outcomes (Yadav & Mahapatra, 2025). The Durbin-Watson statistic of 1.94, close to the ideal value of 2, indicated that the assumption of independent errors was satisfied, and inspection of residual plots confirmed the assumptions of normality, linearity, and homoscedasticity (Field, 2018). Table 4 presents the unstandardized coefficients (B), standard errors (SE), standardized coefficients (β), t-statistics, p-

values, and collinearity statistics for each predictor variable.

Table 4: Multiple Regression Results (Dependent Variable: SME Performance)

Predictor	Unstandardized B	SE	Standardized β	T	p-value	VIF
(Constant)	0.84	0.18		4.67	<0.001	
Pricing Flexibility	0.24	0.05	0.25	4.80	<0.001	1.32
Digital Promotion	0.12	0.04	0.14	3.00	0.003	1.18
Distribution Adaptation	0.38	0.05	0.37	7.60	<0.001	1.29

Model Summary: $R = 0.593$; $R^2 = 0.352$; Adjusted $R^2 = 0.347$; $F(3, 378) = 68.47$, $p < 0.001$; Durbin-Watson = 1.94

4.5 Hypothesis Testing Results

Based on the regression results presented in Table 4, all three hypotheses were supported at the conventional significance level of $p < 0.05$. Hypothesis 1 (H1) , which proposed that pricing flexibility has a significant positive relationship with SME performance, was supported ($\beta = 0.25$, $t = 4.80$, $p < 0.001$). This finding indicates that for every one standard deviation increase in pricing flexibility, SME performance increases by 0.25 standard deviations, holding other variables constant. This result is consistent with prior research by Naisa et al. (2024) and Ochieng (2024), who found that SMEs that reduced prices, offered discounts, and extended credit terms during the pandemic experienced higher customer retention and more stable sales.

In the Kano context, where many consumers faced sudden income losses due to lockdowns, pricing flexibility served as both an economic necessity and a relational signal of solidarity between businesses and their communities (Abdullahi & Umar, 2023). Hypothesis 2 (H2) , which proposed that digital promotion has a significant positive relationship with SME performance, was also supported ($\beta = 0.14$, $t = 3.00$, $p = 0.003$). Although this coefficient is smaller than those for pricing flexibility and distribution adaptation, it remains statistically significant and practically meaningful, suggesting that SMEs using WhatsApp, Facebook, and SMS to communicate with customers during lockdowns were able to sustain sales better than those relying solely on physical interactions (Mpungose et al., 2025; Bello & Musa, 2024).

The weaker effect size relative to the other two predictors is consistent with the lower mean score for digital promotion and reflects the infrastructural and literacy barriers that limit digital marketing effectiveness in Northern Nigeria (Abdullahi & Umar, 2023). Hypothesis 3 (H3) , which proposed that distribution adaptation has a significant positive relationship with SME performance, was supported with the strongest effect among the three predictors ($\beta = 0.37$, $t = 7.60$, $p < 0.001$). This finding strongly aligns with the theoretical expectation from Dynamic Capabilities Theory that firms able to reconfigure their distribution channels in response to environmental shocks achieve superior performance (Teece et al., 1997; Yadav & Mahapatra, 2025). The dominance of distribution adaptation as a predictor in this study reflects the unique context of Kano's economy, where traditional face-to-face market transactions predominate, and lockdowns created an acute need for alternative delivery mechanisms such as motorcycle couriers, neighborhood pickup points, and mobile shop conversions (Liu et al., 2023; Ochieng, 2024).

4.6 Discussion of Findings

The findings of this study offer several important insights into the relationship between marketing mix strategies and SME performance during the COVID-19 pandemic in Kano State, Nigeria. First, the finding that distribution adaptation emerged as the strongest predictor of SME performance underscores the critical importance of place and logistics in contexts where physical marketplaces are the primary mode of commerce (Abdullahi & Umar, 2023). This result diverges somewhat from studies conducted in more digitally-advanced economies, where digital promotion often played a more central role (Liu et al., 2023), and instead aligns with research from other Sub-Saharan African contexts where mobility restrictions had disproportionately severe effects on SME operations due to reliance on informal, in-person trade networks (Mpungose et al., 2025). The practical implication for SME owners in Kano is that investments in delivery infrastructure and logistics partnerships may yield higher returns during disruptions than investments in price reductions or digital advertising (Bello & Musa, 2024).

Second, the significant but relatively weaker effect of digital promotion reflects the digital divide that persists in Northern Nigeria, where high data costs, unreliable electricity, and varying digital literacy levels constrain the reach and effectiveness of online marketing (Bello & Musa, 2024; Naisa et al., 2024). Notably, the mean score for digital promotion (M = 2.94) was below the scale midpoint, indicating that many SMEs either did not adopt digital promotional methods or found them ineffective. This finding suggests that policy interventions aimed at improving digital infrastructure, reducing data costs, and providing digital skills training to SME operators could enhance resilience against future disruptions (SMEDAN, 2022). However, for younger, urban-oriented SMEs serving digitally-connected customer segments, digital promotion remains a valuable tool for customer engagement and order generation (Mpungose et al., 2025).

Third, the positive and moderate effect of pricing flexibility on SME performance supports the view that during economic crises, price elasticity increases as consumers become more sensitive to costs and more receptive to discounts, credit terms, and bundled offers (Yadav & Mahapatra, 2025). The finding that many SMEs in Kano reduced prices or offered credit during the pandemic, often at the expense of profit margins, suggests a trade-off between short-term revenue generation and long-term profitability (Ochieng, 2024). Nonetheless, the ability to maintain customer relationships through flexible pricing appears to have been a worthwhile strategy for preserving operational continuity and market share during the acute phase of the crisis (Naisa et al., 2024).

Finally, the overall explanatory power of the model (adjusted $R^2 = 0.347$) indicates that while marketing mix strategies are important determinants of SME performance during a pandemic, they explain only about one-third of the variance, leaving considerable room for other explanatory factors such as government intervention, prior financial health, social capital, and entrepreneurial orientation (Liu et al., 2023). This finding suggests that future research should incorporate additional moderating and mediating variables-such as innovation, as originally contemplated in the broader PhD topic-to develop a more complete understanding of SME resilience in crisis contexts.

5. CONCLUSION, IMPLICATIONS, AND LIMITATIONS

This study examined the relationships between three marketing mix strategies-pricing flexibility, digital promotion, and distribution adaptation-and the performance of SMEs in Kano State, Nigeria, during the COVID-19 pandemic, drawing on a quantitative survey of 382 SME owners and managers across textile, retail, food, and service sectors. The findings conclusively demonstrate that all three marketing mix strategies have significant positive relationships with SME performance, albeit with varying effect sizes: distribution adaptation emerged as the strongest predictor ($\beta = 0.37$), followed by pricing flexibility ($\beta = 0.25$), and then digital promotion ($\beta = 0.14$), collectively explaining approximately 35% of the variance in SME performance during the crisis period.

These results affirm the theoretical propositions of the Resource-Based View and Dynamic Capabilities Theory, showing that SMEs possessing the flexible organizational resources to reconfigure their pricing, promotion, and particularly their distribution channels were better equipped to maintain sales revenue, retain customers, and sustain operations under the extraordinary constraints imposed by lockdowns and movement restrictions. The weaker performance of

digital promotion in the Kano context reflects the persistent digital divide in Northern Nigeria, highlighting that the effectiveness of marketing mix strategies is not universal but is significantly moderated by local infrastructural, economic, and sociocultural conditions, thereby extending contingency theory insights to pandemic-era marketing research in developing economies.

The findings carry several practical and policy implications for SME owners, trade associations, and government agencies in Kano State and similar contexts. For SME owners and managers, the strong effect of distribution adaptation suggests that investing in alternative delivery mechanisms-including partnerships with motorcycle couriers, establishment of neighborhood collection points, and development of phone-order systems-should be a priority resilience-building strategy, as these investments directly address the most acute vulnerability created by mobility restrictions. For pricing strategies, SMEs should maintain flexible pricing policies during crises, including volume discounts, bundled offers, and extended credit terms for trusted customers, recognizing that preserving customer relationships and cash flow may justify temporary reductions in profit margins.

For digital promotion, while its effect was statistically significant, the modest effect size suggests that SMEs in Kano should adopt a balanced approach, using digital channels as supplementary rather than primary promotional tools unless they serve younger, urban, digitally-connected customer segments; investments in improving digital literacy and affordable data access would be necessary to enhance the effectiveness of this channel. For policymakers, including SMEDAN and the Kano State Ministry of Commerce, the study provides evidence to support interventions aimed at building SME distribution resilience, such as subsidizing last-mile delivery logistics, creating centralized collection hubs in residential neighborhoods, and developing emergency distribution protocols for future crises. Furthermore, addressing the digital infrastructure gap-through improved internet connectivity, reduced data tariffs, and accessible digital skills training programs targeting SME operators in traditional markets like Kantin Kwari and Kurmi Market-would enhance the viability of digital promotion as a crisis-response tool.

This study has several limitations that should be acknowledged and addressed in future research. First, the cross-sectional design captures relationships at a single point in time, which cannot establish causal direction between marketing mix strategies and SME performance, and future longitudinal studies would be valuable to examine how these relationships evolve across different phases of a crisis (acute, stabilization, and recovery). Second, the reliance on self-reported data from SME owners and managers introduces the potential for recall bias, social desirability bias, and common method variance, and future studies could strengthen validity by incorporating objective performance data (such as tax records or sales receipts) or using a multi-informant design.

Third, the study was conducted exclusively in Kano State, which has unique economic, cultural, and infrastructural characteristics, and therefore the findings may not be generalizable to other Nigerian states (such as Lagos with higher digital penetration) or to other developing economies without careful contextual adjustment. Fourth, the model explained only 34.7% of the variance in SME performance, indicating that other important variables-including government support, access to credit, prior financial reserves, entrepreneurial orientation, social capital, and the originally proposed moderating role of innovation-warrant investigation in future extensions of this research, particularly as the broader PhD topic contemplates innovation as a moderator that may amplify or attenuate the effectiveness of marketing mix strategies under crisis conditions.

REFERENCES

Abdullahi, A., & Umar, M. (2023). Impact of COVID-19 lockdown on traditional markets in Northern Nigeria. *Journal of African Business Studies, 15*(2), 45–62.

Barney, J. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120.

Bell, E., & Bryman, A. (2007). The ethics of management research: An exploratory content analysis. *British Journal of Management, 18*(1), 63–77.

Bello, S., & Musa, F. (2024). Digital literacy and SME adaptation during pandemics in Kano State.

Nigerian Journal of Entrepreneurship, 12(1), 88–105.

Field, A. (2018). *Discovering statistics using IBM SPSS statistics* (5th ed.). Sage Publications.

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate data analysis* (8th ed.). Cengage Learning.

Kano State Ministry of Commerce. (2021). *SME sector report: Post-pandemic assessment*. Kano State Government Press.

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology, 22*(140), 1–55.

Liu, Y., Chen, W., & Zhang, X. (2023). The role of technology innovation, customer retention and business continuity on firm performance after the post-pandemic era in China's SMEs. *Economic Analysis and Policy, 78*, 1209–1220.

Mpungose, S., Lekhanya, L. M., & Anwana, E. O. (2025). Social media marketing and survival strategies for rural SMMEs' growth during and beyond the COVID-19 crisis in KwaZulu-Natal. *International Journal of Advanced Business Studies, 4*, 178–209.

Naisa, F. U. K., Xia, E., Ibrahim, A. S., Adeiza, A., & Khan, A. G. (2024). The effect of the global health crisis on organizational marketing and culture of innovation. *Journal of the Knowledge Economy, 15*(3), 15218–15242.

Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). McGraw-Hill.

Ochieng, M. A. (2024). *Strategies adopted by small and medium enterprises for performance management during COVID-19 pandemic* (Master's thesis). University of Nairobi.

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Open University Press.

Radio Nigeria Kaduna. (2020, October 30). *Lagos, Kano and Abia States get larger share of the N75 billion SMEs fund*. Radio Nigeria Kaduna English.

Saunders, M., Lewis, P., & Thornhill, A. (2019). *Research methods for business students* (8th ed.). Pearson Education.

Small and Medium Enterprises Development Agency of Nigeria. (2022). *National survey of micro, small and medium enterprises (MSMEs) in Nigeria*. SMEDAN.

Taherdoost, H. (2017). Determining sample size: How to calculate survey sample size. *International Journal of Economics and Management Systems, 2*, 237–239.

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319–1350.

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533.

Yadav, O., & Mahapatra, S. N. (2025). Adaptation of marketing strategies by SMEs: A comparative study of implementation in stable vs. uncertain times. *Global Business and Finance Review, 30*(11), 18–32.

Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.

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