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**CRISIS MANAGEMENT AND OPERATIONAL PERFORMANCE
OF SMALL BUSINESSES IN THE FEDERAL CAPITAL
TERRITORY, ABUJA**

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Abstract

Small businesses are highly exposed to economic, infrastructural, public-health, and environmental disruptions because they often operate with limited cash reserves, narrow supplier networks, and little formal continuity planning. This study examined the effects of crisis preparedness, crisis response, crisis recovery, and crisis resilience on the operational performance of small businesses in Nigeria's Federal Capital Territory. Organizational resilience theory and business continuity management theory provided the principal theoretical foundations. A positivist, cross-sectional survey design was adopted. The target population comprised approximately 50,000 registered small businesses across major commercial clusters in the FCT. A stratified sample of 397 owners and managers was selected, and 260 usable questionnaires were returned, producing a 65.5% response rate. The instrument used a five-point Likert scale, and the data were analyzed through confirmatory factor analysis and covariance-based structural equation modeling in AMOS 24. The measurement model demonstrated acceptable fit ($\chi^2 = 300.128$, $df = 265$, $\chi^2/df = 1.13$, $GFI = .92$, $CFI = .99$, $AGFI = .90$, $TLI = .99$, $RMR = .05$, $RMSEA = .02$). Crisis recovery had a strong positive effect on operational performance ($\beta = .507$, $p < .001$), while crisis preparedness had a significant negative effect ($\beta = -.152$, $p = .008$). Crisis response had a small, nonsignificant positive effect ($\beta = .017$, $p = .747$), and crisis resilience had a nonsignificant negative effect ($\beta = -.056$, $p = .309$). The four predictors explained 24.2% of the variance in operational performance. The findings show that recovery capability is the most immediate performance-enhancing dimension, while preparedness investments require careful design to avoid short-term cost burdens. Small businesses should maintain practical continuity plans, emergency liquidity,

diversified suppliers, and post-crisis learning systems while aligning preparedness expenditure with their scale and risk profile.

Keywords: crisis management; crisis preparedness; crisis response; crisis recovery; organizational resilience; operational performance; small businesses; Abuja

Introduction

Small businesses are central to employment, income generation, local supply chains, and household welfare. Their proximity to customers and relatively flexible structures allow them to respond quickly to market opportunities, yet the same organizations are often unusually vulnerable to disruption. Limited working capital, dependence on a small number of owners or employees, weak bargaining power, and narrow supplier or customer bases can turn a temporary shock into an existential threat. Crisis management is therefore not an occasional administrative task for small businesses; it is part of the capability required to sustain everyday operations under uncertainty.

The operating environment of small businesses in Nigeria's Federal Capital Territory exposes firms to several overlapping risks. Cash shortages and payment-system disruption can restrict transactions. Fuel-price increases and unstable electricity raise operating costs. Flooding, supply-chain interruptions, insecurity, regulatory changes, and public-health emergencies can affect premises, labor availability, inventory, mobility, and customer demand. These events do not affect every firm in the same way, but they place continuous pressure on owners and managers to anticipate disruption, respond rapidly, restore activity, and learn from experience.

Crisis management refers to the coordinated activities through which an organization prepares for, responds to, recovers from, and becomes more resilient after disruptive events. The concept extends beyond emergency reaction. Preparedness concerns actions taken before a crisis, such as maintaining reserves, identifying alternative suppliers, adopting flexible payment systems, and planning responsibilities. Response concerns immediate decisions taken while the disruption is unfolding. Recovery involves restoring operations, customers, assets, and financial stability. Resilience reflects the enduring capacity to absorb shocks, adapt, learn, and continue operating.

Operational performance captures how effectively a business maintains and restores the activities needed to deliver products or services. For small firms, relevant indicators include continuity of operations, sales stability, customer retention, timely service delivery, cost control, inventory availability, and the speed with which activity returns after disruption. Crisis management should theoretically protect these outcomes. In practice, however, the effects may be uneven. Preparedness requires expenditure before its benefits are visible; improvised responses may reduce short-term losses but create later inefficiencies; recovery activity can restore revenue; and resilience may take time to translate into measurable performance.

Research on crisis management expanded substantially after the COVID-19 pandemic, yet evidence concerning small businesses remains fragmented across countries, industries, and crisis types. Studies document survival strategies, digital adaptation, resource conservation, and business-model innovation, but many focus on a single event or treat crisis management as one broad construct (Adikaram & Surangi, 2020; Alves et al., 2020; Eggers, 2020). Fewer studies estimate the separate effects of preparedness, response, recovery, and resilience on operational performance in one model. Evidence from Nigeria, particularly the FCT, remains limited despite the exposure of small businesses to currency, energy, supply, environmental, and demand shocks.

This study addresses that gap by examining how four dimensions of crisis management affect operational performance among small businesses in Abuja. The study is valuable because owners operate under severe resource constraints and must decide where limited funds and managerial

attention should be directed. Identifying the dimensions with immediate performance consequences can improve continuity planning, training, financial support, and policy design.

The main objective was to determine the effect of crisis management on the operational performance of small businesses in the FCT. The specific objectives were to determine the individual effects of crisis preparedness, crisis response, crisis recovery, and crisis resilience. Four null hypotheses were tested: crisis preparedness has no significant effect on operational performance; crisis response has no significant effect; crisis recovery has no significant effect; and crisis resilience has no significant effect.

For business owners, the study distinguishes crisis activities that produce immediate operational benefits from activities whose value may be indirect or delayed. For government agencies, business associations, lenders, and development organizations, it identifies areas in which training, emergency finance, digital infrastructure, and continuity guidance can be targeted. Academically, the study extends organizational resilience and business continuity perspectives to small businesses facing multiple, recurrent disruptions rather than one isolated disaster.

The study covered registered small businesses with physical operations in major commercial clusters of Wuse and Garki, Kubwa and Nyanya, Lugbe and Dutse-Alhaji, Gwarinpa and Jabi, and Gwagwalada. Large companies, purely informal street traders without fixed locations, and exclusively online businesses were outside the scope. Crisis management was operationalized through preparedness, response, recovery, and resilience; operational performance was measured through items reflecting sales and continuity outcomes.

Literature Review

2.1 Conceptual Review

Crisis management

A crisis is a disruptive event that threatens important goals, restricts decision time, and creates uncertainty about consequences. Crisis management comprises the capabilities and decisions used before, during, and after such an event. For small businesses, the process is rarely housed in a dedicated department. It is embedded in the owner's decisions about cash, employees, suppliers, premises, technology, and customer communication. This concentration can accelerate action but also creates dependence on the owner's experience and judgment.

Contemporary crisis management is cyclical rather than linear. Preparation influences response; response decisions affect the resources available for recovery; and recovery experience should improve future resilience and preparedness. A firm that adopts digital payments before a cash shortage may respond with less disruption. A firm that documents what failed during a supply interruption can diversify suppliers and improve its next response. Viewing the dimensions as a cycle highlights their interdependence while allowing their distinct performance effects to be tested.

Crisis preparedness

Crisis preparedness refers to the anticipatory measures established before disruption occurs. It includes risk identification, contingency planning, emergency liquidity, backup power, data protection, alternative suppliers, insurance, role assignment, and communication protocols. Preparedness reduces ambiguity because decision makers know what resources are available and what actions should be taken. Business continuity research treats planning and rehearsal as mechanisms for protecting critical activities and reducing restoration time (Herbane, 2010; Sahebjamnia et al., 2015).

Preparedness can nevertheless impose short-term costs on small businesses. Cash held as an emergency reserve cannot be used for inventory or expansion. Backup equipment, insurance, redundant suppliers, staff training, and formal planning require money and time. A poorly targeted

plan may become a compliance document that does not reflect actual risks. The performance effect of preparedness therefore depends on whether investments are proportionate, usable, and connected to response and recovery capability.

Crisis response

Crisis response consists of actions taken while disruption is unfolding. Typical responses include changing operating hours, reducing nonessential expenditure, communicating with customers, negotiating payment terms, adopting new delivery channels, and shifting to alternative products or payment systems. Speed matters because delay can increase losses, but speed without reliable information can produce overreaction. Effective response combines timely authority with situational awareness and clear communication.

Communication is a central response mechanism. Customers need accurate information about prices, availability, delivery, and payment methods; employees need role clarity and safety guidance; suppliers and creditors may need revised commitments. Crisis communication theory argues that stakeholder interpretation influences trust and behavior during disruption (Coombs, 2007; Coombs & Holladay, 2002). For small businesses, direct relationships can make honest, rapid communication particularly valuable.

Crisis recovery

Recovery concerns the restoration of viable operations after the immediate disruption has passed. Activities may include restocking inventory, repairing equipment, restoring premises, renegotiating obligations, obtaining finance, rebuilding customer demand, and revising failed processes. Recovery is not synonymous with returning to the exact pre-crisis condition. Firms may retain digital channels, alternative suppliers, or new cost structures developed during the crisis. This process of renewal can improve performance beyond simple restoration.

Recovery capability depends on access to financial, relational, physical, and knowledge resources. Firms that maintain lender relationships, reliable supplier networks, customer information, and accurate records may restore activity faster. Post-crisis review also matters because it converts experience into improved routines. Studies of small firms after COVID-19 emphasize customer re-engagement, financial restructuring, and business-model adjustment as important components of recovery (Promnil & Polnyotee, 2023; Rodrigues et al., 2021).

Crisis resilience

Organizational resilience is the capacity to absorb strain, adapt, continue functioning, and develop through adversity. Resilience is broader than resistance. A resistant firm attempts to preserve existing operations; a resilient firm can modify routines and resource configurations when preservation is impossible. Duchek (2020) describes resilience as involving anticipation, coping, and adaptation, while Lengnick-Hall et al. (2011) emphasize the cognitive, behavioral, and contextual capacities that support resilient action.

Resilience is often difficult to observe in a cross-sectional survey because it develops over time and may produce benefits only during subsequent disruptions. A firm may diversify suppliers or institutionalize lessons without experiencing immediate sales growth. Resilience can also be constrained by external conditions, including infrastructure, credit access, and the severity or duration of the shock. These considerations may weaken its direct contemporaneous relationship with operational performance.

Operational performance

Operational performance concerns the efficiency, continuity, reliability, and output of business processes. In small firms, owners often assess it through sales, customer retention, production or

service continuity, cost control, and recovery speed. Operational performance differs from long-term competitive advantage or financial profitability, although the concepts are related. A firm can maintain operations during a crisis while accepting lower margins, or preserve liquidity by temporarily reducing output.

The outcome is influenced by many conditions beyond crisis management: sector, business age, firm size, owner capability, competition, input prices, access to credit, infrastructure, regulation, and demand. Crisis-management dimensions should therefore be expected to explain only part of the variation. The remaining variance is substantively important because it prevents crisis management from being presented as a complete solution to structural business constraints.

2.2 Empirical Review

Empirical research generally finds that small businesses use combinations of cost reduction, resource conservation, digital adoption, networking, and business-model adjustment during crises. Adikaram and Surangi (2020) concluded from a systematic review that SME crisis research emphasizes preparedness, adaptive action, and recovery but remains methodologically fragmented. Alves et al. (2020) observed survival, resilience, and renewal strategies among small firms in Macau during COVID-19, while Eggers (2020) highlighted how limited resources create both vulnerabilities and incentives for entrepreneurial adaptation.

Preparedness and operational performance

Preparedness is commonly associated with lower interruption risk and faster decision-making. Herbane (2013) showed that continuity planning in SMEs is shaped by owner perception, experience, and resource availability. Klyver and Nielsen (2021) reported that SME leaders vary considerably in their expectations about the usefulness of formal crisis strategies. This variation suggests that preparedness will improve performance only when plans are operational, affordable, and matched to realistic threats.

Evidence also indicates a possible trade-off between protection and current activity. Paeleman et al. (2023) distinguished aggressive and conservative crisis strategies and showed that resource choices can have different short- and long-term consequences. Emergency reserves and redundancy protect continuity but carry opportunity costs. A negative short-term coefficient for preparedness may therefore reflect the burden of investment, retrospective adoption after poor experiences, or a mismatch between preparation and the crisis encountered.

Response and operational performance

Response studies emphasize speed, flexibility, communication, and the ability to reconfigure operations. Fasth et al. (2021) found that SME crisis management is embedded in practice, social relationships, and working methods rather than in formal plans alone. Kukanja et al. (2020) documented cost controls, service modification, and operational adaptation among tourism SMEs. Digital payment, delivery, and customer-communication systems can preserve transactions, yet improvised actions may not produce measurable performance gains when disruptions are severe or resources are limited.

The effect of response may also depend on timing and coherence. Cutting costs can protect cash but impair service; raising prices can preserve margins but reduce demand; shortening hours can reduce expenses but limit sales. Because the survey captures a variety of responses across multiple crisis experiences, positive and negative effects may offset each other, producing a small overall coefficient.

Recovery and operational performance

Recovery has a direct connection to performance because its objective is to restore sales, customers, inventory, equipment, and operating capacity. Promnil and Polnyotee (2023) found that SME hotel recovery involved financial adjustment, customer-development initiatives, and service redesign. Rodrigues et al. (2021) similarly reported that business adaptation and management responses supported continuity during COVID-19. These studies imply that recovery becomes visible in operational indicators sooner than broader resilience capabilities.

Recovery quality depends on whether the firm merely reopens or uses the disruption to improve. Restocking without addressing supplier concentration leaves the original vulnerability intact. Borrowing without revising cash-flow practices may postpone failure. Effective recovery combines restoration with learning: it identifies why losses occurred, prioritizes critical processes, and makes changes that reduce exposure to future shocks.

Resilience and operational performance

Studies connect resilience with survival, adaptation, and long-term renewal. Lengnick-Hall et al. (2011) linked resilience capacity to strategic human-resource practices, and Duchek (2020) conceptualized it as a capability developed through anticipation, coping, and adaptation. Ozanne et al. (2022) found that social capital and dynamic capabilities supported SME resilience during COVID-19. However, resilience measures often overlap with preparedness and recovery, and their benefits may appear over a longer horizon than a cross-sectional performance measure can capture. The literature therefore supports testing the four dimensions separately. Preparedness should reduce exposure, response should limit immediate losses, recovery should restore operations, and resilience should support continued adaptation. At the same time, resource costs, timing, crisis severity, and measurement windows can produce unequal or even counterintuitive coefficients.

Theoretical Review

Organizational resilience theory

Organizational resilience theory explains how organizations anticipate threats, cope with disruption, and adapt after adversity. The perspective developed across organizational adaptation, high-reliability, strategic management, and disaster research rather than from one founder. Its central assumption is that resilient organizations combine awareness, flexible resources, coordinated action, and learning. Resilience is therefore a capability that develops through routines and relationships rather than a one-time reaction (Duchek, 2020; Linnenluecke, 2017).

The theory maps closely onto the study variables. Preparedness represents anticipation; response represents coping; recovery and resilience represent restoration, learning, and adaptation. It predicts that firms with stronger capabilities should maintain or restore operational performance more effectively. Its limitation is that resilience is sometimes inferred from successful outcomes, creating circular reasoning. By measuring practices separately from performance, the study reduces—but does not eliminate—this problem.

Business continuity management theory

Business continuity management developed from disaster recovery and continuity planning into a strategic approach for protecting critical activities. It requires organizations to identify essential processes, analyze disruption impacts, select continuity strategies, document responsibilities, test arrangements, and improve them through review (Herbane, 2010; International Organization for Standardization, 2020). BCM is especially relevant to preparedness, response, and recovery because it connects risk analysis to operational restoration.

BCM provides the principal procedural explanation for the study. Preparedness establishes alternatives and resources; response activates the arrangements; recovery restores prioritized activities; and post-event review strengthens future continuity. Its formal systems were often developed for large organizations, so small firms require proportionate application. A concise continuity plan, emergency contact list, supplier alternative, digital backup, and cash-flow scenario may be more usable than an extensive manual.

Crisis communication theory

Crisis communication theory emphasizes how information, responsibility, and stakeholder interpretation shape outcomes. Situational crisis communication theory proposes that communication should fit the nature of the crisis and stakeholder expectations (Coombs, 2007). In small businesses, communication can protect trust, clarify availability, manage complaints, and coordinate employees and suppliers. The theory explains an important part of crisis response but is narrower than the study because it does not fully address liquidity, infrastructure, or recovery resources.

Resource based view

The resource-based view argues that organizational outcomes depend on valuable capabilities and resources that competitors cannot easily reproduce (Barney, 1991). Emergency liquidity, owner experience, supplier relationships, digital systems, loyal customers, and employee versatility can operate as crisis-management resources. The RBV explains why firms facing the same disruption achieve different outcomes. Its static tendency is a limitation in fast-changing crises, but its resource logic complements the process orientation of resilience and BCM.

Conceptual Framework

The conceptual framework treats operational performance as the endogenous construct and preparedness, response, recovery, and resilience as exogenous dimensions of crisis management. Each dimension is expected to influence operational performance directly. The model does not include sector, age, size, or crisis severity as controls, so the estimated paths represent average associations across the sampled firms.

Table 1 Conceptual expectations

Dimension	Expected contribution	operational	Primary mechanism
Preparedness	Reduced exposure and decision delay		Planning, reserves, backups, and alternatives
Response	Limited immediate disruption		Rapid adjustment and stakeholder communication
Recovery	Restored activity and revenue		Restocking, repair, finance, and customer renewal
Resilience	Sustained adaptation across crises		Learning, flexibility, and resource reconfiguration

Methodology

3.1 Research Design and Philosophy

The study adopted a quantitative, cross-sectional survey design and a positivist research philosophy. The design supported standardized measurement of crisis-management practices and operational performance across a large number of firms and enabled hypotheses to be tested statistically. Data were collected at one point in time, so the analysis identifies associations rather than changes across successive phases of a crisis.

3.2 Population Sample and Sampling

The population comprised approximately 50,000 registered small businesses in the FCT. The study defined small businesses in relation to employee and turnover criteria and focused on firms with fixed operating locations. Five commercial strata were used: Wuse/Garki, Kubwa/Nyanya, Lugbe/Dutse-Alhaji, Gwarinpa/Jabi, and Gwagwalada. Their estimated population shares were 20.49%, 21.48%, 18.64%, 13.77%, and 25.63%, respectively.

Yamane's formula at a 5% margin of error produced a planned sample of 397. Proportionate stratified allocation assigned 81 questionnaires to Wuse/Garki, 85 to Kubwa/Nyanya, 74 to Lugbe/Dutse-Alhaji, 55 to Gwarinpa/Jabi, and 102 to Gwagwalada. Of the 397 questionnaires distributed, 260 were returned and analyzed, representing a response rate of 65.5%. Owners and managers were selected because they possessed direct knowledge of crisis decisions and operational outcomes.

3.3 Instrument and Measures

Primary data were collected through a structured questionnaire administered with support from research assistants. Section A collected business characteristics. Section B measured crisis preparedness, response, recovery, resilience, and operational performance. Items used a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). Each latent construct was represented by five indicators.

Preparedness items addressed emergency reserves, digital payments, alternative power, supplier alternatives, and emergency plans. Response items covered changes to hours, customer communication, cost reduction, creditor or landlord negotiation, and alternative delivery methods. Recovery items addressed promotions, restocking, finance, repair, and post-crisis review. Resilience items concerned permanent adoption of lessons, supplier diversification, flexibility, learning, and continued functioning. Operational-performance items assessed sales and continuity relative to the period before or during disruption. Measures were adapted from crisis-management and SME literature, including Herbane (2010), Kukanja et al. (2020), Coombs (2007), Fasth et al. (2021), Lengnick-Hall et al. (2011), Duchek (2020), and Paeleman et al. (2023).

3.4 Data Analysis and Quality Assessment

Descriptive statistics summarized response patterns and business characteristics. Confirmatory factor analysis in AMOS 24 assessed the measurement model. Indicator loadings, average variance extracted, maximum shared variance, composite reliability, Cronbach's alpha, and the heterotrait-monotrait ratio were used to evaluate indicator reliability, convergent validity, discriminant validity, and internal consistency. Overall fit was evaluated using chi-square relative to degrees of freedom, GFI, CFI, AGFI, TLI, RMR, and RMSEA.

Because predictor and outcome data were obtained from the same respondent, common-method variance was examined through a comparison of standardized loading patterns. Structural relationships were estimated using maximum-likelihood covariance-based SEM. Standardized estimates, standard errors, critical ratios, and p-values were used to evaluate the hypotheses at the 5% level. R^2 indicated the proportion of variation in operational performance explained jointly by the four dimensions.

3.5 Ethical and Design Considerations

Participation was voluntary, and results were analyzed in aggregate. No individual business is identified in the manuscript. The survey approach provided broad coverage but depended on owner and manager recall, including retrospective judgments about earlier crises. The cross-sectional design and self-report measures should therefore be considered when interpreting causal claims.

Results and Discussion

4.1 Sample Profile

The usable sample contained 260 businesses. Business age was widely distributed: 18.8% had operated for less than one year, 18.5% for one to three years, 19.6% for four to six years, 20.8% for seven to ten years, and 22.3% for at least ten years. Employee counts were also distributed across categories: 23.1% had one to five employees, 28.1% had six to ten, 24.6% had eleven to twenty, and 24.2% had twenty-one to forty-nine.

The sector distribution was relatively balanced across retail trade (18.8%), food and beverages (18.8%), personal services (21.5%), logistics (22.3%), and manufacturing (18.5%). Respondents operated in Wuse, Garki, Kubwa, Lugbe, Gwarinpa, Jabi, Gwagwalada, and Dutse-Alhaji. This spread strengthens the relevance of the findings across several local business environments, although it does not constitute a probability census of all FCT small businesses.

Table 2 Summary of respondent businesses

Characteristic	Largest category	Share
Business age	10 years and above	22.3%
Employees	6–10 employees	28.1%
Sector	Logistics	22.3%
District	Jabi	15.0%

Note. N = 260.

4.2 Measurement Model

The confirmatory factor analysis supported the measurement model. Overall fit was acceptable: $\chi^2 = 300.128$, $df = 265$, $\chi^2/df = 1.13$, GFI = .92, CFI = .99, AGFI = .90, TLI = .99, RMR = .05, and RMSEA = .02. Preparedness, response, recovery, and operational-performance loadings ranged from .80 to .89. Resilience loadings were lower, ranging from .57 to .67, but remained above the study's retention threshold.

Average variance extracted ranged from .501 for resilience to .853 for response. Composite reliability ranged from .833 to .967, and Cronbach's alpha ranged from .833 to .967. HTMT values were below .85, supporting construct distinctiveness. The lower resilience loadings suggest greater measurement heterogeneity, which may partly explain the weak structural coefficient and should be considered when designing future instruments.

Table 3 Measurement quality summary

Construct	Loading range	AVE	CR	Alpha
Crisis preparedness	.83–.85	.828	.960	.960
Crisis response	.84–.89	.853	.967	.967
Crisis recovery	.82–.85	.805	.954	.953
Crisis resilience	.57–.67	.501	.833	.833
Operational performance	.80–.85	.809	.955	.955

Note. AVE = average variance extracted; CR = composite reliability.

4.3 Structural Model Results

The structural results were not uniform across crisis-management dimensions. Recovery had the largest coefficient and a strong positive relationship with operational performance. Preparedness was

statistically significant but negative. Response and resilience were not statistically significant. The four variables jointly explained 24.2% of the variance in operational performance, leaving 75.8% attributable to sector conditions, owner capability, firm resources, crisis severity, market demand, infrastructure, and other unmeasured factors.

Table 4 Structural paths to operational performance

Hypothesis	Path	β	SE	CR	p	Decision
H1	Preparedness → performance	−.152	.057	−2.667	.008	Supported; negative
H2	Response → performance	.017	.054	.322	.747	Not supported
H3	Recovery → performance	.507	.056	8.994	< .001	Supported; positive
H4	Resilience → performance	−.056	.055	−1.017	.309	Not supported

Note. N = 260. R² for operational performance = .242. Labels follow the regression table in the dissertation; this corrects coefficient-label inconsistencies elsewhere in the source.

4.4 Discussion

Preparedness and operational performance

Preparedness had a significant negative association with operational performance ($\beta = -.152$, $p = .008$). This result is counter to a simple expectation that more preparation always produces better current performance. A plausible interpretation is that preparedness imposes immediate costs: cash reserves reduce funds available for stock and expansion, backup power and digital systems require investment, and planning consumes scarce managerial time. If the performance measure emphasizes current sales or operating output, these protective expenditures may appear as a short-term burden.

A second explanation is reactive preparedness. Businesses that experienced more severe prior disruption may subsequently invest in reserves, supplier alternatives, or formal plans. Their high preparedness scores could therefore coexist with weaker performance caused by the earlier crisis. Cross-sectional data cannot determine the temporal order. The result does not imply that owners should abandon preparedness; it indicates that preparation must be proportionate, risk-based, and connected to usable response and recovery arrangements. This interpretation is consistent with research showing that formal SME planning is constrained by resources and owner perceptions (Herbane, 2013; Klyver & Nielsen, 2021).

Response and operational performance

Crisis response had a small positive but nonsignificant effect ($\beta = .017$, $p = .747$). The near-zero coefficient may reflect the mixed consequences of response tactics. Reduced operating hours and expenditure can preserve cash but reduce sales; price adjustments may protect margins but weaken demand; delivery and digital channels may expand access but introduce costs. When these contrasting actions are aggregated, their average direct effect can become statistically indistinguishable from zero.

The result may also indicate that response is necessary but insufficient. Immediate action helps a business survive the disruption, yet performance improves only when those actions lead to restoration, customer return, and renewed cash flow. Response quality depends on timing, information, coordination, and crisis type. Future research should distinguish proactive adaptation from defensive retrenchment and test whether recovery mediates the effect of response on performance.

Recovery and operational performance

Recovery had a strong positive effect on operational performance ($\beta = .507$, $p < .001$) and was the dominant predictor. This relationship is theoretically coherent because recovery activities directly restore the processes measured by operational performance. Restocking, repairing assets, securing

finance, renegotiating obligations, rebuilding customer demand, and revising failed procedures can translate quickly into renewed sales and service continuity.

The finding aligns with evidence that successful SME recovery combines financial adjustment, customer re-engagement, and operating innovation (Promnil & Polnyotee, 2023; Rodrigues et al., 2021). Recovery should therefore be treated as an active managerial capability rather than as passive waiting for conditions to normalize. Owners benefit from predetermined recovery priorities, accurate financial records, relationships with lenders and suppliers, and post-event reviews that convert disruption into improved routines.

Resilience and operational performance

Crisis resilience had a negative but nonsignificant coefficient ($\beta = -.056$, $p = .309$). One explanation is the time horizon. Resilience concerns an enduring capacity to learn and adapt across disruptions, whereas the performance measure captures current operational outcomes. Investments in diversification, learning, and flexibility may not produce immediate sales gains. Their benefit becomes visible when the next disruption occurs or when longitudinal performance is observed.

Measurement may also contribute. Resilience indicators had lower loadings than the other constructs, suggesting that respondents interpreted the items less consistently. In addition, preparedness, response, recovery, and resilience are conceptually related; once the more immediate recovery pathway is included, resilience may have little remaining direct effect. Longitudinal models should test whether resilience moderates the effects of crisis severity or mediates the conversion of past experience into future performance.

4.5 Theoretical and Practical Implications

The results support the cycle proposed by organizational resilience and BCM perspectives but show that its phases do not have equal contemporaneous effects. Recovery was closest to operational restoration and therefore produced the strongest coefficient. Preparedness carried a short-term performance trade-off, while response and resilience may influence survival or later outcomes not fully captured by the current measure. Theory should consequently distinguish immediate performance, continuity, survival, and long-term renewal rather than treating them as interchangeable outcomes.

For practice, the results favor an integrated but prioritized approach. Small businesses should first establish viable recovery arrangements: access to emergency finance, supplier and customer contact records, restoration priorities, data backup, and procedures for reviewing disruption. Preparedness investments should then be selected through simple risk and cost assessment. Response protocols should specify decision authority and communication responsibilities. Resilience should be developed through repeated learning, diversification, and flexible routines rather than through slogans or one-off training.

Conclusion

This study examined the effects of crisis preparedness, response, recovery, and resilience on operational performance among small businesses in the FCT. The evidence demonstrates that crisis management is multidimensional and that its components have unequal relationships with current performance. Recovery produced a strong positive effect, preparedness produced a smaller negative effect, and response and resilience were not statistically significant. Together, the dimensions explained 24.2% of operational-performance variation.

The findings do not justify ignoring preparation, response, or resilience. Instead, they show that the value of those capabilities depends on cost, timing, implementation quality, crisis type, and the outcome period being measured. Recovery has the clearest immediate payoff because it directly

restores customers, assets, inventory, and cash flow. Preparedness should be designed efficiently so that protective resources do not unnecessarily restrict current operations. Response must connect to recovery, and resilience requires a longer-term learning horizon.

Recommendations

9. Develop concise recovery plans that identify critical activities, restoration order, responsible persons, supplier and customer contacts, financing options, and minimum resource requirements.
10. Maintain proportionate emergency liquidity. Owners should balance reserves with working-capital needs and review the amount against likely disruption duration rather than holding arbitrary balances.
11. Diversify essential suppliers, payment channels, power sources, and delivery methods where the cost is justified by the operational risk.
12. Connect response decisions to recovery objectives. Cost reductions, operating-hour changes, and customer communications should preserve the capabilities needed to resume normal activity.
13. Conduct a brief post-crisis review after every major disruption, documenting what failed, what worked, financial consequences, and the changes required before the next event.
14. Government and business-support agencies should provide practical continuity templates, affordable emergency-credit windows, digital-payment support, and sector-specific training for small-business owners.
15. Track outcomes over time. Businesses should monitor interruption duration, recovery time, lost sales, customer retention, and restoration costs to evaluate whether preparedness expenditure is producing value.

Limitations and Future Research

The study used cross-sectional, self-reported data, so causality and temporal ordering cannot be established. The 65.5% response rate creates possible nonresponse bias, and retrospective questions may be affected by recall. The sample covers selected commercial clusters in the FCT and should not be generalized automatically to informal microenterprises, large firms, or other Nigerian regions. The lower resilience loadings also indicate a need for further measurement refinement.

Future studies should use longitudinal designs that observe firms before, during, and after disruption. Crisis type and severity should be measured explicitly, and objective outcomes such as sales, closure duration, employee retention, and recovery time should supplement owner perceptions. Comparative studies across sectors and regions can test whether preparedness costs and recovery benefits vary with resource intensity. Researchers should also evaluate mediation and moderation, including whether response improves performance through recovery and whether resilience becomes valuable under more severe or repeated shocks.

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