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STRATEGIC FLEXIBILITY OR REACTIVE CHAOS? HOW PRIOR BUSINESS CONTINUITY PLANNING MODERATES CRISIS MANAGEMENT STRATEGY EFFECTIVENESS

Abstract

Organizations facing crises must balance the need for rapid operational changes against the risk of poorly coordinated responses. Using multi-group structural equation modeling with data from 342 organizations (212 without prior business continuity plans, 130 with prior plans), the study tests whether preparedness moderates the effectiveness of crisis management strategies. Results reveal contrasting patterns: operational changes that tend to worsen revenue impact in unprepared organizations ($\beta = -0.162$) actually protect revenue in prepared organizations ($\beta = 0.183$, $p = 0.055$), representing a 0.345 standard deviation difference. Similarly, challenges faced show negative effects without planning but marginally positive effects with planning. These findings demonstrate that business continuity planning functions as a critical moderator that fundamentally transforms how strategies operate, enabling strategic flexibility rather than reactive chaos. The study resolves debates about rigid versus flexible crisis response by showing that optimal outcomes require planned flexibility: frameworks that enable strategic rather than panic-driven change.

Keywords: Business continuity planning; crisis management; organizational resilience; strategic flexibility; structural equation modeling.

INTRODUCTION

When crises strike, organizations face a critical dilemma: Should they rapidly implement operational changes to adapt to new circumstances, or will such changes, made under pressure and without adequate planning, create more problems than they can solve? This tension between flexibility and stability has long characterized crisis management research (Bundy et al., 2017; Pearson & Clair, 1998), with some scholars advocating for rigid adherence to pre-established plans (Elliott et al., 2010) and others emphasizing the importance of adaptive improvisation (Cunha et al., 1999; Weick, 1998). Recent global disruptions ranging from the COVID-19 pandemic (Bartik et al., 2020; Seetharaman, 2020) to supply chain crises (Craighead et al., 2007) and cyberattacks, have made this question increasingly urgent as organizations struggle to determine which crisis management strategies actually protect organizational outcomes.

The existing literature offers conflicting guidance. Proponents of business continuity planning argue that preparedness creates the infrastructure necessary for effective crisis response enabling organizations to maintain operations and protect stakeholder value during disruptions (Herbane, 2010; Sahebjamnia et al., 2015; Zsidisin et al., 2005). However, critics of that view claim that rigid plans can possibly inhibit the flexibility needed to respond to novel or rapidly evolving crises, and that overinvestment in planning may divert resources from more productive activities (Weick & Sutcliffe, 2015). Advocates of organizational improvisation suggest that adaptive capacity matters more than advance preparation, pointing to cases where unprepared organizations successfully navigated crises through creativity and rapid learning (Hadida et al., 2015; Vera & Crossan, 2005).

This paper suggests that this debate is rather misconstrued. Rather than asking whether planning or flexibility is more important, the question should be: Does prior planning change how flexibility operates? Specifically, it is proposed that business continuity planning functions as a critical moderator that transforms the relationship between crisis management strategies and organizational outcomes (Aguinis et al., 2005). Without established frameworks, operational changes may represent reactive, poorly coordinated responses that worsen outcomes (Miner et al., 2001). With prior planning, the same changes become strategic pivots that protect organizational

performance (Gibb & Buchanan, 2006). If this is true, then planning and flexibility are not alternatives but complements, and the optimal approach is planned flexibility (Weick & Sutcliffe, 2015).

To test this proposition, multi-group structural equation modeling is employed (Kline, 2015; Rosseel, 2012) to examine whether prior business continuity planning moderates the relationship between crisis management strategies (operational changes and challenge management) and two critical outcomes: time to restore operations and revenue impact. Marketing activities are included as a covariate to control for firms marketing responsiveness during the crisis. The sample includes 342 organizations: 212 without prior business continuity plans and 130 with established plans, allowing to directly compare how the same strategies operate in different preparedness contexts.

Research findings strongly support the moderation hypothesis. Notably, operational changes show opposite effects on revenue impact depending on organizational preparedness: they tend to worsen outcomes in unprepared organizations but protect revenue in prepared organizations, with a difference of 0.345 standard deviations: a medium-to-large effect size by conventional standards (Cohen, 1988). This pattern suggests that preparedness doesn't just make strategies more effective, it fundamentally changes their mechanism of action. Similar patterns are observed for the effects of challenges faced, which harm unprepared organizations but may create opportunities for prepared ones.

These findings make three important contributions. First, they resolve the planning-versus-flexibility debate by demonstrating that the two approaches are complements rather than substitutes. Second, they reveal business continuity planning as a critical moderator whose presence fundamentally transforms organizational crisis response (Dawson, 2014). Third, they provide clear practical guidance: organizations should invest in preparedness frameworks that enable strategic adaptation rather than rigid procedures or pure improvisation.

Relevance of the Study. The practical relevance of understanding how business continuity planning shapes crisis response has never been greater. The increasing frequency and severity of organizational disruptions, from pandemics and natural disasters to technological failures and geopolitical instabilities, demand evidence-based guidance for managers making crucial decisions under uncertainty. Organizations worldwide invest substantial resources in crisis preparedness programs, yet without clear understanding of how such investments alter the effectiveness of specific response strategies, these resources may be misallocated or underutilized. This study addresses practitioners' need for actionable insights by identifying which crisis management approaches work, for whom, and under what conditions: this knowledge is essential for designing resilient organizational systems capable of dealing effectively with future disruptions.

Scientific Significance. From a theoretical perspective, this research advances crisis management scholarship by shifting the analytical focus from main effects to conditional relationships. While previous studies have examined business continuity planning and operational flexibility as separate predictors of crisis outcomes, limited work has investigated their interaction. By positioning preparedness as a boundary condition that moderates strategy-outcome relationships, a more nuanced theoretical framework is offered by current study that explains contradictory findings in the literature. This approach responds to recent calls for contingency-based crisis management theories that acknowledge organizational heterogeneity. Furthermore, the utilized empirical design: comparing organizations with and without prior planning using multi-group structural equation modeling, provides methodological rigor rarely achieved in crisis management research, where samples are often small, convenience-based, or retrospectively collected.

Research Aim. The aim of this study is to examine whether business continuity planning moderates the relationship between crisis management strategies and organizational outcomes. Specifically, the study investigates how the presence or absence of prior planning alters the effects of operational changes and challenge management on two critical recovery metrics: time to restore operations and revenue impact. Marketing activities are included as a covariate to account for firms marketing responsiveness during the crisis. By testing these relationships across prepared and unprepared organizations, the research aims to determine whether planning and flexibility function as substitutes or as complements that together produce superior crisis resilience.

LITERATURE REVIEW

Crisis Management Strategies and Organizational Outcomes

The crisis management literature has identified numerous strategies that organizations employ when facing disruptions, ranging from communication protocols and stakeholder management to operational adjustments and resource reallocation (Bundy et al., 2017; Pearson & Clair, 1998). However, research on the effectiveness of these strategies has produced mixed results, with some interventions showing positive effects in certain contexts but neutral or negative effects in others (Williams et al., 2017). This heterogeneity suggests the presence of important moderating factors that determine when and how crisis management strategies turn into protected outcomes.

Among the various strategies organizations employ, operational changes including process modifications, resource reallocation, and structural adjustments, represent particularly important interventions. Such changes

can potentially enable organizations to adapt to new circumstances and maintain functionality despite crises (Lengnick-Hall et al., 2011). However, they also carry significant risks: poorly designed or hastily implemented changes can disrupt established routines, create coordination problems, and compound the challenges created by the original crisis (Faraj & Xiao, 2006; Okhuysen & Bechky, 2009). The question of when operational changes help versus hurt organizational outcomes remains unresolved.

Another important factor is the number and severity of challenges organizations face during crises. While conventional wisdom suggests that more challenges should produce worse outcomes, some research on post-traumatic growth and adversarial learning suggests that challenges can catalyze organizational learning and improvement (Rollins et al., 2014; Srinivasan et al., 2005). Whether challenges represent purely negative stressors or potential opportunities for adaptation may depend on organizational capacity to leverage them constructively.

Marketing activities during crises have received attention in the literature, with evidence suggesting both potential benefits (maintaining brand visibility and customer trust) and drawbacks (diminishing returns when resources are scarce) (Argote & Miron-Spektor, 2011; Duchek, 2020). Given these mixed findings, marketing activities are treated in the present study as a covariate rather than a focal predictor, controlling for variation in firms' marketing responsiveness while the analysis focuses on operational changes and challenge management as the primary crisis strategies of interest.

The Debate: Rigid Planning versus Adaptive Flexibility

One of the most enduring debates in crisis management concerns the relative value of advance planning versus adaptive improvisation. The business continuity planning perspective emphasizes the importance of developing, documenting, and practicing response protocols before crises occur (Elliott et al., 2010; Herbane, 2010). Proponents argue that such preparation enables faster response, better coordination, and more effective resource deployment when disruptions strike (Gibb & Buchanan, 2006; Zsidisin et al., 2005). Organizations with established plans can quickly activate predetermined procedures rather than having to design responses from scratch under pressure.

However, critics of the planning approach raise several concerns. Thus, they note that crises are inherently unpredictable, and existing plans designed for anticipated scenarios may provide little guidance when novel disruptions emerge (Weick & Sutcliffe, 2015). The COVID-19 pandemic, for instance, differed in many important ways from the pandemic scenarios most organizations had planned for, potentially limiting the value of prior preparation (Carnevale & Hatak, 2020; Seetharaman, 2020). Critics argue that detailed plans can create rigidity, constraining organizations from pursuing innovative responses that circumstances might demand (Cunha et al., 1999). At the same time, the substantial resources required for comprehensive planning including time, money, and employee attention, might be better invested in building general adaptive capacity or addressing more immediate operational needs (Miner et al., 2001).

The organizational improvisation literature offers a contrasting perspective, emphasizing that successful crisis response often requires creativity, rapid learning, and the ability to recombine and redistribute existing resources in novel ways (Hadida et al., 2015; Vera & Crossan, 2005; Weick, 1998). Research on high-reliability organizations and emergency response teams suggests that experienced practitioners can effectively respond to unexpected situations by drawing on tacit knowledge and collaborative sense-making, utilizing whatever resources are available (Roberts, 1990; Weick & Roberts, 1993). From this perspective, investment in developing adaptive capacity, psychological safety, and cross-functional relationships may matter more than formal planning.

Empirical evidence on this debate remains mixed. Some studies find that organizations with business continuity plans experience better outcomes during crises (Sahebjamnia et al., 2015), while others find weak or inconsistent effects. Similarly, research on organizational improvisation shows that while some organizations successfully adapt without prior planning (Miner et al., 2001), others engage in counterproductive actions that worsen outcomes. These inconsistent findings suggest that researchers may be asking the wrong question: not whether planning or flexibility is superior, but rather how these approaches interact.

Business Continuity Planning as a Moderator

This study proposes that business continuity planning functions as a critical moderator that changes how crisis management strategies operate. Rather than viewing planning as a strategy that competes with flexibility, it is suggested that planning creates the infrastructure that enables effective flexibility (Weick & Sutcliffe, 2015). This perspective draws on several theoretical foundations.

It should be noted that business continuity planning is not a monolith construct. International standards such as ISO 22301 and the Business Continuity Institute's Good Practice Guidelines recognize multiple dimensions of BCP maturity (International Organization for Standardization, 2019; Randeree et al., 2012) including planning documentation, regular testing and exercising, integration with strategic decision-making and the use of digital crisis management systems. Organizations may have plans that range from basic documented procedures to comprehensive, regularly revised frameworks embedded in organizational culture. The present study employs a binary measure (plan versus no plan) as a necessary first step in establishing whether the fundamental distinction between having and lacking preparedness infrastructure alters strategy and performance outcomes. Having

established this foundational moderation effect, future research can examine whether more defined components of BCP produce differentiated moderation patterns.

Organizational learning theory suggests that prior preparation creates mental models and decision-making frameworks that guide action under uncertainty (Argote & Miron-Spektor, 2011; Levitt & March, 1988). When crises strike, prepared organizations can quickly diagnose situations, identify relevant response options, and evaluate potential courses of action using frameworks developed through planning processes (Maitlis & Christianson, 2014). Without such frameworks, the same assessment and decision-making processes must be constructed ad hoc, increasing the likelihood of errors and inconsistencies.

Next, coordination theory indicates that effective organizational action requires aligned understanding and complementary activities across different units and levels (Malone & Crowston, 1994; Okhuysen & Bechky, 2009). Business continuity planning creates common reference points, clarifies roles and responsibilities, and establishes communication protocols that facilitate coordination during crises (Faraj & Xiao, 2006). Operational changes implemented within this coordinated framework are more likely to be mutually reinforcing rather than working at cross-purposes. Without such infrastructure, changes may be poorly coordinated, creating new problems even as they attempt to solve old ones.

Resource-based theory suggests that organizational capabilities including crisis management capabilities develop through deliberate investment and practice (Barney, 1991; Teece et al., 1997). The process of business continuity planning builds organizational competencies in risk assessment, scenario analysis, and response design (Eisenhardt & Martin, 2000). These capabilities enable organizations to make better decisions about which operational changes to implement and how to execute them effectively. Organizations without such developed capabilities are more likely to make poor choices or execute changes ineffectively.

These theoretical foundations suggest specific predictions about how business continuity planning should moderate the effects of crisis management strategies:

Hypothesis 1: The relationship between operational changes and organizational outcomes will differ between organizations with and without prior business continuity planning. Specifically, operational changes will show negative or weak effects in unprepared organizations but positive effects in prepared organizations.

Hypothesis 2: The relationship between challenges faced and organizational outcomes will differ based on prior planning. Challenges will show more negative effects in unprepared organizations but may show neutral or even positive effects (through learning and adaptation) in prepared organizations.

The Current Study

To test these hypotheses, a multi-group structural equation modeling is employed (Kline, 2015; Rosseel, 2012) to compare the operation of crisis management strategies in organizations with versus without prior business continuity planning. This approach allows to estimate separate path coefficients for each group, directly testing whether the relationships between strategies and outcomes differ based on preparedness (Dawson, 2014; Hayes, 2017). Effects on two critical outcomes are examined: time to restore operations (capturing speed of recovery) and revenue impact (capturing financial consequences). By estimating both outcomes simultaneously, it can be assessed whether preparedness affects the speed, quality, or both dimensions of crisis response.

METHODOLOGY AND METHODS

Sample and Data Collection

The analysis draws on survey data from 342 touristic organizations from forty countries that experienced significant operational disruptions. Organizations were reached through online questionnaire distribution with contact information collected via tourism exhibition (Kazakhstan International Tourism Fair, 2025) and open-source directories. The sample included 212 organizations (62%) that did not have business continuity plans in place before the crisis and 130 organizations (38%) that had established plans. This distribution is consistent with research showing that many organizations, particularly smaller enterprises, lack formal continuity planning despite its potential benefits (Gibb & Buchanan, 2006; Herbane, 2010).

The tourism and hospitality industry provides a theoretically appropriate context for testing these relationships. Tourism organizations are characterized by high vulnerability to external shocks, notable operational diversity (ranging from small owner-operated firms to large international chains) and dependence on complex supply networks that increase the consequences of crisis management decisions. Furthermore, the international scope of the sample, spanning forty countries across multiple continents, provides variation in regulatory environments, economic conditions, and crisis exposure patterns that strengthens external validity beyond what a single-country sample could provide. While the examined fundamental organizational processes such as crisis response coordination, operational adaptation, and planning effectiveness are not industry-specific, the magnitude and relative importance of such strategies may vary across sectors. Thus, cross-industry replication would be valuable for establishing the universality of these findings.

Measures

Business Continuity Planning. Organizations indicated whether they had a business continuity plan in place before the crisis (coded 0 = no prior plan, 1 = prior plan in place). This binary measure was used as the grouping variable in the multi-group structural equation model.

Marketing Activities. Organizations reported on marketing activities during the crisis, including targeting new market segments, enlarging marketing campaigns, providing discounts, focusing on loyal customers, using digital marketing tools, increasing marketing budget, keeping up with competitors and improving quality of offerings. Responses were averaged to create a composite measure.

Challenges Faced. Organizations indicated how many distinct challenges they encountered during the crisis (e.g., cash flow disruptions, workforce availability issues, business partners' functioning, demand consistency). The total count served as the measure of challenge intensity. This count-based approach captures breadth of disruption (how many different types of problems organizations faced) rather than depth (severity of any single problem). While depth measures would provide complementary information, breadth captures the coordination and resource allocation complexity that organizations must manage when responding to multiple simultaneous challenges.

Operational Changes. Organizations reported the number of significant operational changes implemented in response to the crisis, including adapting crisis modeling, marketing strategy adjustments, new markets exploration. Similar to the challenges measure, this count-based approach captures adaptation scope (how many different types of changes were attempted) rather than the magnitude of any single change. The measure reflects strategic flexibility and willingness to experiment with multiple responses, which theory suggests should be particularly important during new crises where optimal responses are uncertain.

Time to Restore Operations. Organizations indicated how long it took to restore critical operations to functional levels, measured on an ordinal scale (1 = less than one month, 2 = 1-3 months, 3 = 3-6 months, 4 = more than six months).

Revenue Impact. Organizations reported the revenue impact of the crisis on an ordinal scale (1 = decrease over 50%, 2 = decrease 25-50%, 3 = decrease up to 25%, 4 = increase (up to 25% or more).

Analytical Strategy

A multi-group structural equation modeling was employed using the lavaan package in R (Rosseel, 2012). The model specified two dependent variables (time to restore operations and revenue impact) predicted by two focal independent variables (challenges count and operational changes count) and one covariate (marketing activities, included to control for variation in firms' marketing responsiveness during the crisis). Because both dependent variables were ordinal, the Diagonally Weighted Least Squares (DWLS) estimator was used, which is appropriate for ordered categorical outcomes (Li, 2016).

The key feature of present analysis is the multi-group structure: the model was estimated separately for organizations with versus without prior business continuity planning (Kline, 2015). This approach allows each path coefficient to differ between groups, directly testing research hypotheses about moderation (Aguinis et al., 2005; Dawson, 2014). If business continuity planning moderates strategy effectiveness, different coefficient patterns across groups should be observed, particularly reversals in sign or substantial differences in magnitude.

The choice of the DWLS estimator warrants further justification. Traditional maximum likelihood (ML) estimation assumes continuous normally distributed variables. Such assumptions can be violated when outcome measures are ordinal with few categories, as in the present study. DWLS, by contrast, estimates a polychoric correlation matrix and uses only the diagonal elements of the weight matrix, providing consistent and asymptotically efficient estimates for ordered categorical data even with moderate sample sizes. Simulation studies have demonstrated that DWLS outperforms ML estimation in recovering true parameter values when data are ordinal, particularly when category counts are small and distributions are skewed (DiStefano et al., 2018; Li, 2016). Additionally, the multi-group design itself provides a degree of protection against common method bias because the analysis tests whether structural relationships differ across groups rather than comparing mean levels. Thus, any uniform inflation of self-reported responses would affect both groups similarly and would not produce the observed pattern of coefficient reversals.

RESULTS

Results are presented separately for the two dependent variables: time to restore operations and revenue impact. For each outcome, standardized coefficients are reported for both groups (organizations without prior BCP and organizations with prior BCP) to facilitate comparison of effect sizes and patterns.

Table 1. Standardized Path Coefficients for Time to Restore Operations

Predictor	No Prior BCP (n=212)	Prior BCP (n=130)
Marketing Activities	$\beta = 0.091, p = 0.225$	$\beta = 0.132, p = 0.151$
Challenges Count	$\beta = 0.215, p = 0.007^{**}$	$\beta = 0.301, p = 0.001^{***}$
Operational Changes	$\beta = -0.025, p = 0.783$	$\beta = 0.021, p = 0.817$

Note. $^{**}p < 0.01$, $^{***}p < 0.001$. Standardized coefficients shown. Source: compiled by the authors.

Table 1 presents the relationships between crisis management strategies and time to restore operations. The number of challenges faced emerged as the strongest and most consistent predictor of recovery time across both groups. For organizations without prior BCP, each additional challenge was associated with a 0.215 standard deviation increase in restoration time ($p = 0.007$). This effect was even more pronounced for organizations with prior BCP ($\beta = 0.301, p = 0.001$), where challenges showed a stronger relationship with recovery time.

The stronger effect of challenges in prepared organizations may initially seem counterintuitive, but likely reflects more systematic and thorough responses to problems. Organizations with established frameworks may take appropriate time to address each challenge properly rather than taking shortcuts or ignoring issues (Weick & Sutcliffe, 2015). The consistency of positive coefficients across groups indicates that challenges universally delay recovery regardless of preparation level, though prepared organizations may respond more systematically (Roberts, 1990).

Neither marketing activities nor operational changes significantly predicted recovery time in either group. This suggests that while these factors may influence the quality or effectiveness of crisis response, they do not substantially affect the speed of recovery. The null findings for operational changes are particularly noteworthy given their substantial effects on revenue impact (discussed below).

Table 2. Standardized Path Coefficients for Revenue Impact

Predictor	No Prior BCP (n=212)	Prior BCP (n=130)
Marketing Activities	$\beta = 0.105, p = 0.205$	$\beta = -0.058, p = 0.579$
Challenges Count	$\beta = -0.077, p = 0.360$	$\beta = 0.176, p = 0.072^{+}$
Operational Changes	$\beta = -0.162, p = 0.102$	$\beta = 0.183, p = 0.055^{+}$

Table 2 presents the most notable findings of this study: clear reversals in the direction of effects depending on prior business continuity planning. These patterns provide strong support for the moderation hypotheses.

Operational Changes (Hypothesis 1 Supported). For organizations without prior BCP, operational changes showed a negative relationship with revenue impact ($\beta = -0.162, p = 0.102$), indicating that making changes tended to worsen revenue outcomes, though this effect did not reach conventional significance. In stark contrast, organizations with prior BCP showed a marginally significant positive relationship ($\beta = 0.183, p = 0.055$), where operational changes were associated with protected revenue.

The magnitude of this outcome is substantial: the difference between groups is 0.345 standard deviations (from -0.162 to +0.183). By conventional effect size standards (Cohen, 1988; Cohen, 1992), this represents a medium-to-large moderating effect. The pattern suggests that without established frameworks, operational changes may represent reactive, poorly coordinated responses that create additional problems (Miner et al., 2001). With prior planning, the same changes become strategic adjustments that effectively protect organizational performance (Gibb & Buchanan, 2006). This finding directly supports the hypothesis that preparedness transforms how operational flexibility operates.

Challenges Faced (Hypothesis 2 Supported). A similar pattern occurred for the effects of challenges. Organizations without prior BCP showed a negative (though non-significant) relationship between challenges and revenue impact ($\beta = -0.077, p = 0.360$), consistent with the intuitive expectation that more problems lead to worse outcomes. However, organizations with prior BCP showed a marginally significant positive relationship ($\beta = 0.176, p = 0.072$), suggesting that prepared organizations may actually benefit from confronting challenges.

This unexpected positive relationship in prepared organizations could reflect several mechanisms. Prepared organizations may be better positioned to treat challenges as learning opportunities, systematically improving their processes as they address problems (Argote & Miron-Spektor, 2011; Duchek, 2020). Additionally, successfully managing challenges may create competitive advantages if competitors struggle more severely with the same

difficulties. Finally, the process of addressing challenges within an established framework may reveal organizational strengths and build confidence that translates into better overall performance (Lengnick-Hall et al., 2011).

Marketing activities did not significantly predict revenue impact in either group (No BCP: $\beta = 0.105$, $p = 0.205$; With BCP: $\beta = -0.058$, $p = 0.579$). As expected for a covariate, these non-significant results confirm that marketing responsiveness does not independently explain variation in revenue outcomes in this sample, and that the focal effects of operational changes and challenges are not confounded by differential marketing effort across organizations.

Summary of Results

The multi-group analysis reveals that prior business continuity planning fundamentally moderates how crisis management strategies affect organizational outcomes. For recovery speed, challenges consistently delay restoration regardless of preparation, though prepared organizations show stronger (more systematic) effects. For revenue impact, the more consequential outcome, opposite effects are observed: operational changes and challenges that harm unprepared organizations actually protect prepared ones. These patterns provide strong support for viewing BCP as critical infrastructure that transforms crisis response rather than simply another strategy to employ.

DISCUSSION

Theoretical Contributions

This study makes three important theoretical contributions to crisis management research.

First, an attempt was made to resolve the long-standing debate between planning and flexibility by demonstrating that they are complements rather than substitutes. The reversal of operational change effects, from negative without planning to positive with planning, shows that preparedness doesn't constrain flexibility but rather enables it to operate effectively (Weick & Sutcliffe, 2015). These findings challenge both the rigid planning perspective (which may overemphasize adherence to predetermined procedures) (Elliott et al., 2010) and the pure improvisation perspective (which may underestimate the value of frameworks for guiding adaptation) (Cunha et al., 1999). The optimal approach is not planning or flexibility but planning for flexibility, creating frameworks that enable strategic rather than reactive change (Hadida et al., 2015).

Next, business continuity planning is revealed as a critical moderator that fundamentally transforms organizational crisis response. Previous research has largely treated BCP as a main effect asking whether organizations with plans perform better than those without (Sahebjamnia et al., 2015; Zsidisin et al., 2005). Multi-group analysis performed for this study shows that this framing misses the more important story: BCP changes how other strategies work (Dawson, 2014). The same operational changes that worsen outcomes in unprepared organizations protect outcomes in prepared ones. This moderation effect has important implications for both theory and measurement. Theoretically, it suggests that preparedness research should focus on how plans enable effective action rather than whether organizations have plans (Gibb & Buchanan, 2006). Methodologically, it implies that studies examining crisis management strategies without accounting for preparedness context may produce misleading or inconsistent results (Aguinis et al., 2005).

Findings also suggest that preparedness affects the quality rather than the speed of crisis response. The universal effect of challenges on recovery time, combined with their differential effects on revenue impact, indicates that prepared and unprepared organizations may take similar amounts of time to respond but achieve very different outcomes. This challenges assumptions that preparedness primarily accelerates response (Herbane, 2010) and suggests that the value of planning lies more in enabling effective decision-making and coordination than in reducing response latency (Faraj & Xiao, 2006; Okhuysen & Bechky, 2009). Future research should examine the specific mechanisms through which preparedness improves response quality.

Practical Implications

The findings of this study offer clear guidance for practitioners:

- Invest in business continuity planning as essential infrastructure. The substantial moderating effects demonstrate that BCP should be viewed not as compliance overhead but as critical infrastructure that determines whether organizations can effectively respond to crises (Elliott et al., 2010; Sahebjamnia et al., 2015). The 0.345 standard deviation reversal in operational change effects represents a substantial practical difference: the difference between changes that worsen outcomes versus changes that protect them. Organizations that view BCP as optional or that limit planning to minimal compliance are fundamentally constraining their crisis response capacity.

- Design plans for operational flexibility, not rigid procedures. Since operational changes only protect revenue when guided by prior planning, BCP frameworks should explicitly incorporate decision-making protocols, change management processes, and adaptation mechanisms (Gibb & Buchanan, 2006; Weick & Sutcliffe, 2015). Rather than attempting to prescribe specific actions for every possible scenario (an impossible task), plans should establish frameworks for how organizations will assess situations, evaluate options, make decisions, and coordinate implementation. The goal is to enable strategic adaptation rather than dictate rigid responses.

- Leverage challenges as learning opportunities when prepared. The marginally significant positive effect of challenges on revenue for prepared organizations suggests that with proper frameworks, difficulties can be turned into competitive advantages (Argote & Miron-Spektor, 2011; Duchek, 2020). Organizations with established BCP should explicitly incorporate learning mechanisms into their crisis response protocols, systematically capturing insights from each challenge addressed and using them to refine both immediate response and long-term capabilities. This transforms crises from purely negative events into opportunities for organizational development.
- Implement specific BCP components systematically. Organizations developing new BCPs should prioritize: clear decision-making authority structures specifying who can authorize operational changes during crises; communication protocols ensuring coordination across departments when implementing changes; pre-established vendor relationships and alternative supply arrangements enabling rapid reaction; regular scenario planning exercises that rehearse adaptation processes rather than memorize specific responses; and post-crisis review mechanisms that capture lessons learned and update plans accordingly. These elements create the infrastructure that transforms potentially chaotic change into strategic flexibility.
- Establish early warning indicators and activation triggers. Organizations should identify quantifiable metrics that signal when operational changes become necessary (for example, revenue decline limits, supply disruption indicators, demand shifts) and pre-define decision protocols for responding to these triggers. This reduces reliance on reactive judgments made under stress and enables faster, more coordinated responses when crises emerge.
- Test and update plans regularly through realistic simulations. The effectiveness of BCP depends on organizational familiarity with frameworks and processes. Organizations should conduct semi-annual crisis simulation exercises that test both decision-making protocols and operational change implementation procedures, then update plans based on identified gaps. These exercises should involve cross-functional teams and senior leadership to ensure coordinated response capability exists throughout the organization.
- Avoid reactive operational changes without frameworks. The negative (though non-significant) coefficient for operational changes in unprepared organizations serves as a warning: making changes without established frameworks may worsen outcomes rather than improve them (Miner et al., 2001). Organizations facing crises without prior plans should be cautious about implementing major operational changes and should consider investing in rapid framework development before making significant changes. When changes must be made immediately, extra attention should be paid to coordination, stakeholder communication, and monitoring for unintended consequences (Faraj & Xiao, 2006).

While the empirical context of this study is tourism and hospitality, the principle of planned flexibility has broad applicability across sectors. In healthcare, business continuity planning enables hospitals to implement surge capacity protocols and resource allocation during epidemics without compromising patient care. In manufacturing, pre-established frameworks allow firms to reconfigure supply chains and production processes in response to disruptions while maintaining quality control. In education, institutions with crisis preparedness infrastructure were better positioned to transition to remote delivery during the COVID-19 pandemic. The common mechanism across these contexts is that prior planning creates decision-making infrastructure, coordination protocols, and resource allocation frameworks that transform potentially chaotic operational changes into strategic adaptations. The specific operationalization of BCP components will naturally differ by sector, but the fundamental moderation principle that preparedness determines whether flexibility helps or harms should potentially apply broadly.

Limitations and Future Research

Several limitations should be acknowledged and suggest directions for future research. Before discussing specific limitations, it is useful to consider the boundary conditions under which the observed moderation effects are likely to hold or vary. The moderating role of BCP may be stronger in industries with high operational interdependence and complex supply chains where the coordination benefits of prior planning are most visible. Conversely, in highly regulated industries where crisis response protocols are externally mandated, the distinction between organizations with and without voluntary BCP may be less observable. The effectiveness of BCP as a moderator may also interact with organizational characteristics not examined here, including leadership style, organizational culture, digital readiness, and financial resilience. Organizations with transformational leadership and learning-oriented cultures may extract greater benefit from BCP infrastructure while financially resilient organizations may have more latitude to implement the operational changes that BCP enables. Furthermore, the temporal dimension deserves attention: the present study captures crisis response and immediate recovery outcomes, but the moderating effect of BCP on longer-term outcomes such as sustained competitive advantage, innovation capacity, and organizational learning remains an open question for longitudinal investigation.

The marginal significance levels for key revenue impact effects, while substantively important given the large effect size differences (Cohen, 1992), suggest that replication with larger samples would strengthen confidence in the findings. The consistent pattern of coefficient changes across multiple predictors provides convergent evidence for the moderation hypothesis (Hayes, 2017), but additional samples, particularly those allowing subgroup analysis by industry, organization size, or crisis type, would be valuable.

Cross-sectional design prevents strong causal claims. While the multi-group comparison controls for time-invariant differences between prepared and unprepared organizations, and the pattern of results (strategy-outcome relationships changing direction) is more consistent with moderation than selection, experimental or longitudinal research could provide stronger causal evidence. Studies tracking organizations as they develop continuity plans (Herbane, 2010), or examining outcomes from crises occurring both before and after plan implementation, would be particularly valuable.

Next, prior BCP was measured as a binary variable (plan versus no plan), which does not capture variation in plan quality, comprehensiveness, or currency, nor does it differentiate BCP maturity levels such as whether organizations possess formal documented plans, conduct regular training programs, or utilize digital crisis management systems. Future research should examine whether different types or qualities of planning moderate strategy effectiveness differently (Gibb & Buchanan, 2006). For instance, do plans that emphasize decision-making frameworks show stronger moderating effects than those emphasizing detailed procedures? Do plans that are regularly tested and updated show different effects than those that exist primarily on paper? Such investigations could provide more nuanced guidance about what kinds of planning provide the greatest value.

Present study examined a specific set of crisis management strategies and outcomes. The moderating role of BCP should be tested with other strategies (for example, stakeholder communication, resource acquisition, partnership formation) and outcomes (e.g., employee retention, customer satisfaction, stakeholder trust). If BCP consistently moderates diverse strategy-outcome relationships (Williams et al., 2017), this would strengthen the case for viewing preparedness as fundamental infrastructure rather than a specialized capability.

Further, the count-based measures of operational changes and challenges faced capture breadth (how many different types of changes or problems) rather than depth (the magnitude or severity of any single change or challenge). While these measures effectively capture the coordination complexity and resource allocation demands that organizations must manage, complementary research using intensity-weighted measures could reveal whether the pattern of moderation effects holds when considering the scale of individual changes or challenges. Qualitative research examining specific high-impact changes could also specify the mechanisms through which planning enables effective adaptation.

It is important to acknowledge that the sample is drawn exclusively from the tourism and hospitality industry, which may limit generalizability to other sectors. While the examined fundamental organizational processes (crisis response coordination, operational adaptation, planning effectiveness) should apply broadly across industries, the specific magnitude of effects and the relative importance of different strategies may vary by sector. Industries with different operational characteristics, regulatory environments, or crisis exposure patterns may show different moderation patterns. Cross-industry replication studies would strengthen confidence in the universality of present findings and could reveal boundary conditions for when BCP most strongly moderates crisis management strategy effectiveness.

Finally, future research should investigate the mechanisms through which BCP enables effective operational change. The results demonstrate that preparedness changes how operational flexibility operates but do not directly illuminate why. Future studies examining how prepared organizations make change decisions, how they coordinate implementation, and how they monitor and adjust changes could reveal the specific practices that translate planning into effective action. Such research could provide actionable guidance about what organizations should actually do differently when they have continuity plans.

CONCLUSION

When crises strike, organizations face a fundamental choice: Should they rapidly adapt their operations to new circumstances, or will such changes, made under pressure, create more problems than they solve? The multi-group structural equation modeling analysis of this study provides a clear answer: it depends on whether the organization has established business continuity planning infrastructure.

The evidence is notable. Operational changes that tend to worsen revenue impact in unprepared organizations actually protect revenue in prepared organizations. Similarly, challenges that simply harm unprepared organizations may create opportunities for prepared ones. These outcomes demonstrate that prior planning does not just make strategies work better, it fundamentally changes how they work.

These findings attempt to resolve the long-standing debate between planning and flexibility by showing they are complements rather than alternatives. The optimal approach is not rigid adherence to predetermined procedures, nor is it unconstrained improvisation. Instead, effective crisis management requires planned flexibility: establishing frameworks that enable strategic rather than reactive change. Business continuity planning should be understood not as simple compliance requirement but as essential infrastructure that determines whether organizations can effectively leverage operational flexibility during crises.

For practitioners, the implications are invest in business continuity planning as critical infrastructure, design plans for flexibility rather than rigid procedures, and recognize that without such frameworks, operational changes may worsen rather than improve outcomes. For researchers, these findings highlight the importance of examining

preparedness as a moderator that shapes how strategies operate rather than simply as another factor that might improve outcomes. Future work should investigate the specific mechanisms through which planning enables effective action and should test whether similar moderation effects extend to other strategies and contexts.

The critical insight is that planning creates the infrastructure that makes adaptation strategic rather than chaotic, protecting organizational outcomes even as circumstances demand operational change.

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СТРАТЕГИЧЕСКАЯ ГИБКОСТЬ ИЛИ РЕАКТИВНЫЙ ХАОС? КАК ПРЕДВАРИТЕЛЬНОЕ ПЛАНИРОВАНИЕ НЕПРЕРЫВНОСТИ БИЗНЕСА УМЕНЬШАЕТ ЭФФЕКТИВНОСТЬ СТРАТЕГИИ УПРАВЛЕНИЯ В КРИЗИСНЫХ СИТУАЦИЯХ

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Аннотация

Организации, сталкивающиеся с кризисами, должны найти баланс между необходимостью быстрых операционных изменений и риском плохо скоординированных реакций. Используя моделирование структурных уравнений для нескольких групп с данными по 342 организациям (212 без предварительных планов обеспечения непрерывности бизнеса, 130 с предварительными планами), данное исследование проверяет, модерирует ли подготовка эффективность стратегий управления кризисом. Результаты выявили контрастирующие паттерны: операционные изменения, которые, как правило, ухудшают влияние на выручку в неподготовленных организациях ($\beta = -0,162$), на самом деле защищают выручку в подготовленных организациях ($\beta = 0,183$, $p = 0,055$), что представляет собой разницу в 0,345 стандартного отклонения. Аналогичным образом, возникающие проблемы демонстрируют негативные эффекты без планирования, но незначительно положительные эффекты при планировании. Эти результаты показывают, что планирование непрерывности бизнеса действует как критический модератор, который фундаментально преобразует то, как работают стратегии, обеспечивая стратегическую гибкость, а не реактивный хаос. Исследование разрешает споры о жестком и гибком реагировании на кризис, показывая, что оптимальные результаты требуют плановой гибкости: структур, которые обеспечивают стратегические, а не вызванные паникой изменения.

Ключевые слова: Планирование непрерывности бизнеса, управление кризисами, организационная устойчивость, стратегическая гибкость, моделирование структурных уравнений

СТРАТЕГИЯЛЫҚ ИІМДІЛІК ПЕ, РЕАКТИВТІ ХАОС ПА? КЕЗДЕСТІЛГЕН КӘСІПКЕРЛІК ҮЗІЛІСТІЛІКТІ ЖОСПАРЛАУ ДАҒДАРЫСТЫ БАСҚАРУ СТРАТЕГИЯЛАРЫНЫҢ ТИІМДІЛІГІН ҚАНДАЙ ТӨМЕНДЕТЕДІ

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Аңдатпа

Дағдарыспен бетпе-бет келген ұйымдар жылдам операциялық өзгерістер қажеттілігі мен нашар үйлестірілген жауаптар қаупін теңестіруі керек. 342 ұйымның деректерімен көп топтық құрылымдық теңдеулерді модельдеуді пайдалана отырып (212 алдын ала бизнес үздіксіздігі жоспарлары жоқ, 130 алдын ала жоспарлары бар) бұл зерттеу дайындық дағдарысты басқару стратегияларының тиімділігін төмендетінін тексереді. Нәтижелер контрастты үлгілерді көрсетті: дайын емес ұйымдарда кіріске әсер етуді нашарлататын операциялық өзгерістер ($\beta = -0,162$), дайындалған ұйымдардағы кірісті нақты қорғайды ($\beta = 0,183$, $p = 0,055$), 0,345 стандартты ауытқу айырмашылығы. Сол сияқты, пайда болған мәселелер жоспарлаусыз теріс әсер етеді, бірақ жоспарлау кезінде аз оң әсер етеді. Бұл нәтижелер бизнестің үздіксіздігін жоспарлау стратегиялардың әрекет ету жолын түбегейлі өзгертетін, реактивті хаосқа емес, стратегиялық ептілікке мүмкіндік беретін маңызды модератор ретінде әрекет ететінін көрсетеді. Зерттеу дағдарысқа қарсы қатаң және икемді жауаптар туралы пікірталастарды оңтайлы нәтижелер жоспарланған икемділікті талап ететінін көрсету арқылы шешеді: дүрбелең емес, стратегиялық өзгерістерге мүмкіндік беретін құрылымдар.

Түйін сөздер: Бизнестің үздіксіздігін жоспарлау, дағдарысты басқару, ұйымдық тұрақтылық, стратегиялық икемділік, құрылымдық теңдеулерді модельдеу