CONFIGURAÇÕES DE ADAPTAÇÃO A CRISES EM PEQUENOS NEGÓCIOS: CAMINHOS PARA SOBREVIVÊNCIA E RENOVAÇÃO POR MEIO DE EFFECTUATION E BRICOLAGE

Configurations of Crisis Adaptation in Small Businesses: Pathways to Survival and Renewal through Effectuation and Bricolage

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Objetivo do estudo
Identificar quais configurações de Effectuation, Bricolage e mecanismos adaptativos são suficientes para produzir sobrevivência e renovação em pequenos negócios durante crises, bem como determinar as condições necessárias para cada resultado estratégico.

Relevância/originalidade
O estudo avança além da identificação descritiva de estratégias de adaptação ao testar como diferentes combinações de lógicas de ação e mecanismos adaptativos produzem resultados distintos, abordando uma lacuna configuracional na literatura sobre empreendedorismo e crises.

Metodologia/abordagem
Aplicou-se crisp-set Qualitative Comparative Analysis (csQCA) a 42 estudos provenientes de uma meta-síntese qualitativa, analisando Effectuation, Bricolage, Transformação Digital, Mobilização de Redes e Mudança do Modelo de Negócios em relação à sobrevivência e renovação.

Principais resultados
Quatro configurações suficientes para sobrevivência e três para renovação foram identificadas, todas com consistência perfeita. A sobrevivência apresenta equifinalidade e inclui uma trajetória de resiliência contextual, enquanto a Mudança do Modelo de Negócios constitui condição necessária para renovação.

Contribuições teóricas/metodológicas
O estudo demonstra a assimetria configuracional entre sobrevivência e renovação, testa a suficiência causal das combinações identificadas na meta-síntese e delimita o CEAF ao revelar trajetórias de sobrevivência que podem ocorrer sem ativação explícita das lógicas de ação empreendedora.

Contribuições sociais/para a gestão
Os resultados auxiliam empreendedores e gestores a reconhecer que diferentes crises exigem combinações distintas de respostas, indicando que a sobrevivência pode decorrer de múltiplas trajetórias, enquanto a renovação requer reconfiguração estrutural do modelo de negócios.

Palavras-chave: Adaptação a Crises, Pequenos negócios, Effectuation, Bricolage, crisp-set Qualitative Comparative Analysis

Configurations of Crisis Adaptation in Small Businesses: Pathways to Survival and Renewal through Effectuation and Bricolage

Study purpose
To identify which configurations of Effectuation, Bricolage, and adaptive mechanisms are sufficient to produce survival and renewal in small businesses during crises, and to determine the necessary conditions associated with each strategic outcome.

Relevance / originality
The study moves beyond descriptive identification of adaptation strategies by testing how different combinations of action logics and adaptive mechanisms generate distinct outcomes, addressing a configurational gap in the entrepreneurship and crisis literature.

Methodology / approach
Crisp-set Qualitative Comparative Analysis (csQCA) was applied to 42 studies from a qualitative meta-synthesis, examining Effectuation, Bricolage, Digital Transformation, Network Mobilization, and Business Model Change in relation to survival and renewal.

Main results
Four sufficient configurations for survival and three for renewal were identified, all with perfect consistency. Survival exhibits equifinality and includes a contextual resilience pathway, whereas Business Model Change constitutes a necessary condition for renewal.

Theoretical / methodological contributions
The study demonstrates configurational asymmetry between survival and renewal, tests the causal sufficiency of combinations identified through meta-synthesis, and delineates the CEAF by revealing survival pathways that may occur without explicit activation of entrepreneurial action logics.

Social / management contributions
The findings help entrepreneurs and managers recognize that crises require different combinations of responses, showing that survival can emerge through multiple pathways, whereas renewal requires structural reconfiguration of the business model.

Keywords: Crisis Adaptation, Small Businesses, Effectuation, Bricolage, crisp-set Qualitative Comparative Analysis

CONFIGURATIONS OF CRISIS ADAPTATION IN SMALL BUSINESSES: PATHWAYS TO SURVIVAL AND RENEWAL THROUGH EFFECTUATION AND BRICOLAGE

1 Introduction

The question of which combinations of entrepreneurial actions generate survival and renewal in small businesses under crisis conditions is relevant both theoretically and practically. As such contexts are not uniform, firms facing similar pressures achieve different outcomes, suggesting that what matters is not only acting, but how different logics and mechanisms of adaptation are combined. The literature highlights Effectuation and Bricolage as complementary logics suited to uncertainty and resource scarcity (Sarasvathy, 2001; Baker & Nelson, 2005), often mobilized simultaneously in crises (Fisher, 2012; Welter et al., 2016). However, it remains unclear which combinations of these logics and their associated mechanisms are sufficient to explain different strategic outcomes.

Research on small business adaptation to crises documents Effectuation and Bricolage both separately and in combination, as well as their contextual antecedents (Fisher, 2012; Scazziota et al., 2020, 2023). Configurational studies further show that digital transformation, network mobilization, and business model change often accompany these action logics in crisis contexts (Rashid & Ratten, 2021; Belitski et al., 2022; An et al., 2020). Through a prior meta-synthesis, evidence was integrated across qualitative and interpretive studies, identifying four aggregated dimensions of adaptation and six strategic patterns, and establishing that a hybrid Effectuation–Bricolage logic characterizes the majority of crisis adaptation cases. A layer of action-logic mechanisms was identified as linking crisis pressures to adaptive behavior and outcome tendencies.

Despite this progress, a configurational gap remains. The synthesis and prior literature establish what firms did and which action logics were activated, but neither specifies which combinations of conditions are sufficient to produce survival versus renewal, nor which conditions are necessary for each outcome. Typologies and patterns describe recurring configurations but do not test their causal sufficiency. Calls for configurational approaches in the Effectuation and Bricolage literature highlight this gap: understanding how conditions combine to produce outcomes requires a set-theoretic method capable of simultaneously identifying necessity, sufficiency, and equifinality (Ott et al., 2017; Gregoire & Cherchem, 2020; Arend et al., 2015).

This gap motivates the following research question: **Which configurations of entrepreneurial action logics and adaptive mechanisms are sufficient for survival and renewal outcomes in small businesses facing crisis conditions, and which conditions are necessary for each outcome?**

This study addresses the question through a crisp-set Qualitative Comparative Analysis (csQCA) applied to a corpus of 42 studies synthesized using an analytical framework based on Gioia et al. (2013), which organized first-order concepts into second-order themes and aggregated dimensions, enabling the translation of findings across studies and the generation of new conceptual insights.

The five conditions examined are Effectuation, Bricolage, Digital Transformation, Network Mobilization, and Business Model Change, derived from the action-logic and mechanism coding developed in the meta-synthesis. Two outcomes are analyzed separately: Survival/Continuity and Renewal/Transformation. The analytical procedure follows established csQCA practice (Ragin, 2008; Schneider & Wagemann, 2012), including analysis of necessary conditions, construction of truth tables, and Boolean minimization using the Quine–McCluskey algorithm to produce parsimonious solution sets with consistency and coverage metrics.

The analysis identifies four configurations sufficient for survival and three for renewal, all with perfect consistency. Business Model Change is necessary for renewal but absent in most survival paths, establishing a structural boundary between the outcomes. Some survival cases are not explained by action logics, indicating a contextual resilience pathway driven by institutional or ecosystem factors. Thus, survival is characterized by equifinality, whereas renewal follows a more restricted configurational logic. The study contributes configurational evidence of how Effectuation, Bricolage, and adaptive mechanisms combine to generate distinct crisis outcomes, advancing the meta-synthesis framework by testing causal sufficiency at the outcome level.

2 Theoretical Background

2.1 Configurational Thinking in Entrepreneurship and Crisis Research

Configurational thinking argues that phenomena are better understood as combinations of conditions rather than additive effects of independent variables (Fiss, 2011). In entrepreneurship research, configurational approaches have been applied to new venture creation (Villani et al., 2017), internationalization (Ciszewska-Mlinaric et al., 2016), and the development of sustainable ventures (Muñoz and Dimov, 2015), consistently demonstrating that the same outcome can arise from multiple distinct configurations and that conditions interact rather than operate independently.

Crisis contexts further reinforce the relevance of configurational thinking, as small firms face constraints that limit simultaneous access to adaptive mechanisms, forcing trade-offs and making the institutional context decisive for viable combinations (Belitski et al., 2022; Ojong & Simba, 2025). Although prior studies identify typologies and adaptation patterns, these approaches tend to classify cases into mutually exclusive categories without specifying the causal logic linking conditions to outcomes. The csQCA advances this perspective by testing whether specific combinations are sufficient to produce an outcome and whether certain conditions are present across all instances of that outcome.

This study advances from identifying dimensions and patterns in the meta-synthesis to assessing causal sufficiency. While the meta-synthesis revealed recurring combinations of logics and mechanisms, csQCA tests their sufficiency for producing outcomes. This responds to calls for configurational and process-oriented analyses of how conditions combine rather than operate in isolation (Ott et al., 2017; Gregoire & Cherchem, 2020; Arend et al., 2015; Scazziota et al., 2023).

2.2 Insights from the Meta-Synthesis: Foundations for Configurational Analysis

This study builds on a qualitative meta-synthesis of 42 peer-reviewed studies (2020–2025) on small-firm strategic adaptation in crises. Unlike aggregative approaches, it developed a higher-order, mechanism-oriented interpretation of entrepreneurial action under uncertainty and resource constraints. Studies were identified through systematic searches in Web of Science and Scopus, complemented by citation tracking, using terms related to entrepreneurship, small firms, crises, strategic adaptation, *Effectuation*, and *Bricolage*. The final corpus included qualitative, interpretive, and mixed-method studies across diverse geographic and sectoral contexts, predominantly addressing COVID-19.

The findings revealed that strategic adaptation in crises is organized into four aggregated dimensions: Strategic Reconfiguration, Adaptive Resource Reconfiguration, Relational Adaptation, and Adaptive Capacity Development. These dimensions capture different ways in which firms adjust their actions, ranging from business model change and digitalization to resource recombination, network mobilization, and the development of resilience and learning over time.

Entrepreneurial action in crises is predominantly hybrid, with *Effectuation* and *Bricolage* operating as complementary logics addressing uncertainty and scarcity through opportunity exploration and constraint resolution. Recurring adaptation patterns, including resilience, digital adaptation, and strategic reconfiguration, emerge from combinations of adaptive mechanisms. However, a mechanism gap persists, as studies provide limited evidence on how entrepreneurs decide, sequence, and alternate action logics over time.

The CEAF integrates these findings by conceptualizing strategic adaptation as a configurational process linking crisis pressures, *Effectuation* and *Bricolage* as action logics, adaptive mechanisms, adaptation patterns, and outcome tendencies. This dynamic process is shaped by boundary conditions, including institutional context, ecosystem networks, and resource availability, and by feedback loops that reconfigure conditions for action. By linking crisis conditions to strategic outcomes through action logics, the CEAF shifts adaptation from descriptive understanding toward configurational explanation, providing the foundation for this study to identify combinations of conditions sufficient to produce distinct strategic adaptation trajectories.

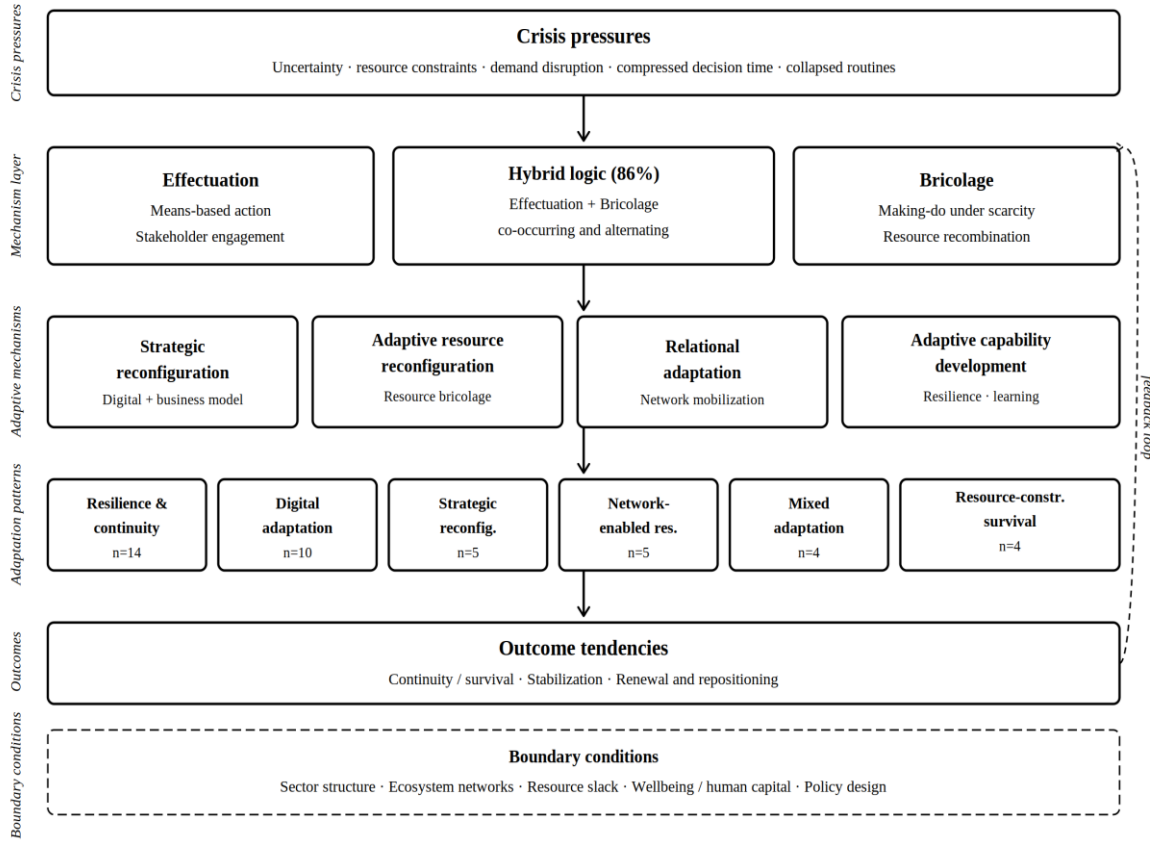


Figure 1. Entrepreneurial Action-Mode Framework (CEAF)
Note: Developed by the authors based on the research (2026).

2.3 Effectuation and Bricolage as Conditions in Crisis Adaptation

Effectuation and Bricolage are distinct yet interrelated entrepreneurial action logics. Effectuation is a means-driven logic in which entrepreneurs leverage available means, embrace contingencies, prioritize affordable loss, and engage stakeholders (Sarasvathy, 2008; Chandler et al., 2011). Bricolage involves improvising and recombining available resources, knowledge, and relationships to address constraints without acquiring optimal resources (Baker & Nelson,

2005; Lévi-Strauss, 1962; Duymedjian & Ruling, 2010). Effectuation and Bricolage can operate simultaneously or sequentially, and both draw on available resources while differing in how they mobilize them (Fisher, 2012; Welter et al., 2016). This distinction guides the calibration: Effectuation is more preventive, seeking to control uncertainty through experimentation and stakeholder engagement (Sarasvathy, 2001; Weick, 1993; Chandler et al., 2011), whereas Bricolage is more reactive, addressing constraints through creative resource recombination (Baker & Nelson, 2005; Weick, 1993; Duymedjian & Ruling, 2010).

Regarding contextual antecedents, uncertainty is primarily associated with Effectuation (Jiang & Tornikoski, 2019; Jiang & Ruling, 2019; McKelvie et al., 2011; Gregoire & Cherchem, 2020), whereas resource scarcity and institutional complexity predominantly drive Bricolage (Castrogiovanni, 1991; Thornton et al., 2012; Siltaloppi et al., 2016; Scazziota et al., 2023). Both, however, are facilitated by social ties and social capital (Baron & Tang, 2009; Gedajlovic et al., 2013; Keating et al., 2014; Scazziota et al., 2023). These distinctions support their treatment as separate binary conditions in csQCA while recognizing their frequent co-occurrence in crisis contexts (Fisher, 2012; Welter et al., 2016; Scazziota et al., 2020).

Digital Transformation, Network Mobilization, and BMC represent adaptive mechanisms through which action logics are expressed in crisis contexts: digitalization reconfigures market access, networks capture the relational dimension of adaptation, and business model change restructures value creation. Together with Effectuation and Bricolage, these conditions encompass the action-logic and mechanism layers of the CEAF, enabling tests of causal sufficiency across both levels. Two outcomes are examined: Survival/Continuity, reflecting operational persistence, and Renewal/Transformation, reflecting repositioning, structural change, or growth beyond survival.

3 Method

3.1 Research Design and Rationale for csQCA

Crisp-set Qualitative Comparative Analysis (csQCA) was selected as the analytical method because both the data structure and the research question are suited to set-theoretic analysis. The 42 cases consist of qualitative studies, each providing interpretive evidence on the presence or absence of action logics and mechanisms in crisis adaptation processes. Binary calibration is appropriate, as the underlying evidence is categorical: studies either provide clear evidence of a condition or they do not.

The use of fuzzy-set fsQCA would introduce false precision, as the underlying evidence does not support gradations between full and non-membership in conditions such as “Effectuation present” or “Digital Transformation present.”

Qualitative Comparative Analysis is well suited for medium-sized qualitative datasets (Rihoux and Ragin, 2009; Schneider and Wagemann, 2012). With 42 cases, the analysis has sufficient cases to identify consistent configurations while maintaining the interpretive depth that distinguishes csQCA from regression-based approaches. The method is also appropriate for the theoretical objective of identifying equifinality: if multiple configurations produce the same outcome, this provides evidence that adaptation is not a single generalizable process, but a set of context-dependent pathways.

3.2 Dataset and Calibration

The dataset is directly derived from the coding conducted during the meta-synthesis. Each of the 42 articles constitutes a case. The five conditions and the two outcomes were coded as present (1) or absent (0) based on the evidence reported in each study. The calibration logic for each condition is described in Table 1.

Table 1

Calibration of Conditions and Outcomes

Variable	Type	Present (1)	Absent (0)	Source
Effectuation	Condition	Study provides clear evidence of means-based action, affordable loss reasoning, stakeholder engagement, or iterative experimentation as the adaptation mechanism	Study describes adaptation without evidence of effectual reasoning, or attributes outcomes to planning and goal-driven action	Action-mode coding, Meta-synthesis
Bricolage	Condition	Study provides clear evidence of making-do, resource recombination, or creative improvisation under scarcity as the adaptation mechanism	Study describes adaptation without evidence of bricolage reasoning, or attributes outcomes to resource acquisition rather than recombination	Action-mode coding, Meta-synthesis
Digital Transformation	Condition	Study reports digitalization, e-commerce, social media adoption, or virtual service delivery as a primary adaptive response	Study does not report digital reconfiguration as a primary adaptive response	Mechanism coding, Meta-synthesis
Network Mobilization	Condition	Study reports deliberate use of social ties, partnerships, or ecosystem relationships as a primary adaptive mechanism	Study does not report network mobilization as a primary adaptive mechanism	Mechanism coding, Meta-synthesis
Business Model Change	Condition	Study reports pivoting of products, services, markets, or delivery channels as a primary adaptive response	Study does not report business model reconfiguration as a primary adaptive response	Mechanism coding, Meta-synthesis
Survival/ Continuity	Outcome	Study reports operational continuity, business persistence, or resilience as the primary adaptive result	Study reports failure, closure, or does not report continuity as an outcome	Outcome coding, Meta-synthesis
Renewal/ Transformation	Outcome	Study reports repositioning, transformation, growth, or improved competitive position as an outcome beyond survival	Study does not report renewal or transformation outcomes	Outcome coding, Meta-synthesis

Note. Elaborated by the author (2026).

Across the 42 cases, Digital Transformation was the most prevalent condition (11 cases; 26.2%), followed by Effectuation and Business Model Change (10 cases each; 23.8%), Bricolage (8 cases; 19.0%), and Network Mobilization (7 cases; 16.7%). Regarding the outcomes, Survival/Continuity was observed in 24 cases (57.1%), whereas Renewal/Transformation occurred in only 5 cases (11.9%).

3.3 Analytical Procedure

The analysis follows the standard csQCA procedure in three stages (Schneider & Wagemann, 2012). The analysis of necessary conditions examines whether any condition is present in all or nearly all instances of each outcome, using a consistency threshold of 0.90. The construction of the truth table groups cases by their configuration of conditions, records the number of cases and outcome-positive cases per row, and assigns an outcome value of 1 to rows with consistency equal to or greater than 0.75 and a frequency of at least one case. Boolean minimization using the Quine–McCluskey algorithm then reduces the set of sufficient configurations to a parsimonious solution.

Solution quality is assessed through consistency, which indicates the reliability of the configuration, and coverage, which measures the proportion of cases explained, with unique coverage referring to cases exclusively covered by each path. According to Ragin (2008), a consistency of 1.000 indicates perfect sufficiency, while values below 0.75 are not reliable. Coverage below 1.000 for survival indicates unexplained cases, which are analyzed as a contextual resilience pathway.

4 Findings

The results are organized in three stages: analysis of necessary conditions, construction of the truth table, and identification of sufficient configurations, with Figure 2 providing an integrative visualization of the solution. The figure is divided into two sections: the upper section presents the paths for Survival/Continuity, and the lower section presents the paths for Renewal/Transformation. In each path, conditions are represented by pills: filled pills indicate presence, while outlined pills indicate absence (~X).

On the right side, dashed arrows connect all paths within each outcome section to the corresponding outcome box, which reports the total number of cases and the coverage achieved by the solution. Each path box reports three metrics: consistency (whether the configuration reliably produces the outcome), raw coverage (the proportion of outcome cases covered by that path), and unique coverage (the proportion covered exclusively by that path and no other). A dashed border around a path box, used for Path R3, indicates that the path is based on a single case and should be interpreted as exploratory.

In the Renewal section, the necessary condition band above the paths indicates that Business Model Change (BMC) must be present and Network Mobilization (NM) must be absent in all renewal cases, regardless of the path followed. The dashed rectangle in the Survival section represents the contextual resilience pathway, encompassing 15 cases that achieve survival without the presence of any of the five identified conditions, pointing to a survival route driven by institutional or ecosystem factors rather than the explicit activation of entrepreneurial action logics.

When analyzing the survival paths, a pattern of equifinality emerges: Bricolage alone (S1), Effectuation alone (S4), and two hybrid combinations (S2 and S3) constitute sufficient conditions for survival, yet none of them require Digital Transformation or Business Model Change.

In the renewal paths, Business Model Change appears in all three configurations, Effectuation appears in two of the three, and Digital Transformation appears in two of the three, but never together with Bricolage in the same path. The comparison between S2 (hybrid without BMC, producing only survival) and R2 (hybrid with BMC, producing renewal) highlights the structural role of Business Model Change: it is the condition that transforms a hybrid configuration that produces survival into one that produces renewal. These patterns are further developed in detail in the following sections.

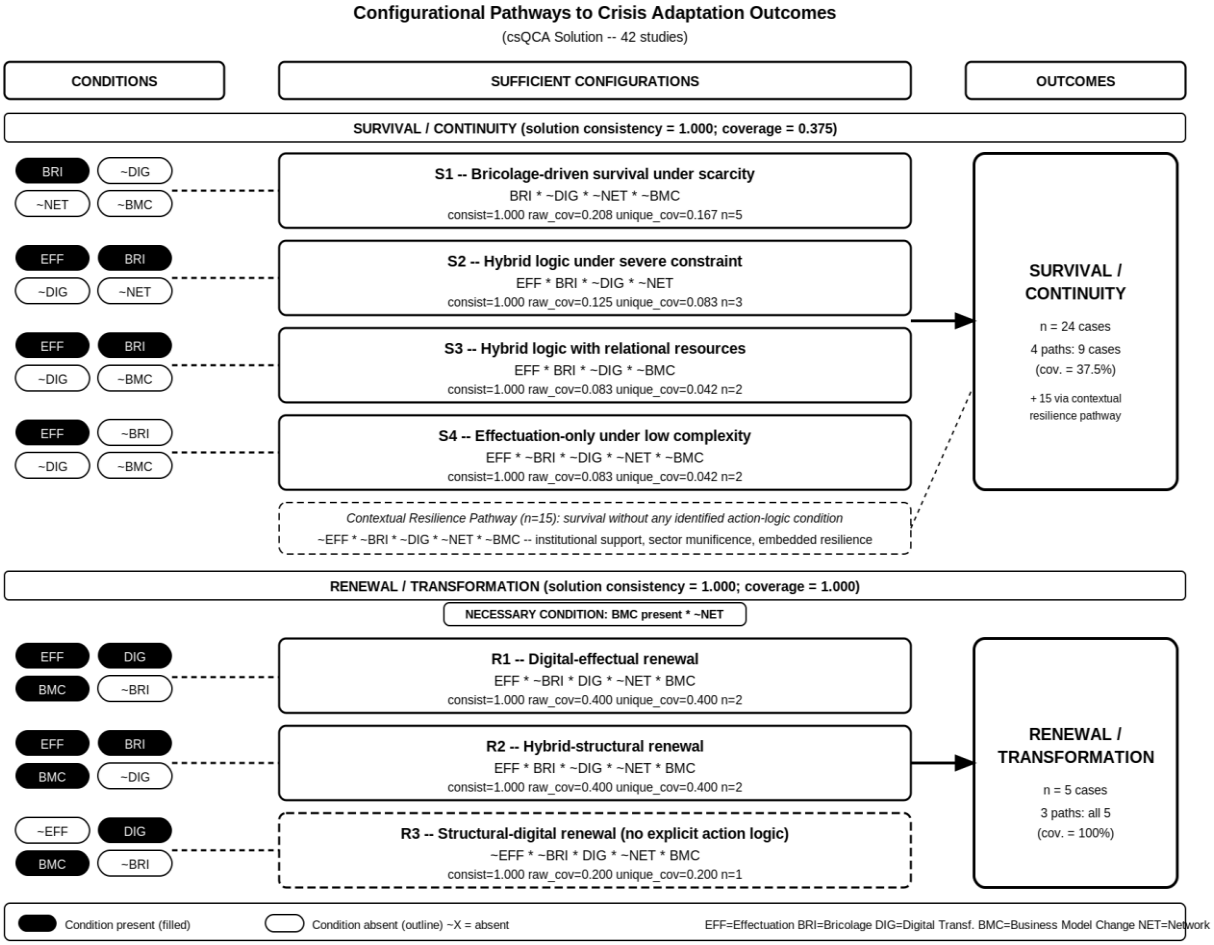


Figure 2
Configurational Pathways to Crisis Adaptation Outcomes (csQCA Solution)
Note: *Created based on the research (2026).*

4.1 Necessary Condition Analysis

The results are organized in three stages. Presents the analysis of necessary conditions for both outcomes. A condition is considered necessary when its consistency is equal to or greater than 0.90, meaning that it is present in at least 90% of the cases with the outcome. Necessary condition analysis was conducted using a consistency threshold of ≥ 0.90. For Survival, none of the conditions in their presence reached the necessity threshold (Effectuation = 0.208; Bricolage = 0.333; Digital Transformation = 0.083; Network Mobilization = 0.042; Business Model Change = 0.208). However, the absence of Digital Transformation (~DIG; consistency = 0.917) and Network Mobilization (~NET; consistency = 0.958) met the necessity threshold. For Renewal, Business Model Change (BMC; consistency = 1.000, coverage = 0.500) and the absence of Network Mobilization (~NET; consistency = 1.000) met the necessity threshold, whereas all other conditions remained below 0.90.

For survival, no positive condition is necessary. The analysis shows that the absence of Digital Transformation (~DIG, consistency = 0.917) and the absence of Network Mobilization (~NET, consistency = 0.958) approach or meet the necessity threshold. This finding indicates that most survival cases are achieved through configurations that do not involve digital reconfiguration or network expansion as primary mechanisms, suggesting a context in which survival operates through restrained and resource-conservative responses.

For renewal, Business Model Change (BMC, consistency = 1.000) is a necessary condition: all five renewal cases involve a fundamental reconfiguration of how value is created or captured. The absence of Network Mobilization (~NET, consistency = 1.000) is also necessary for renewal, indicating that none of the renewal cases relied primarily on network expansion as an adaptive mechanism. Together, these two necessary conditions define the boundary of renewal: it requires structural business reconfiguration but does not involve network expansion.

4.2 Truth Table

Truth tables were constructed for Survival/Continuity and Renewal/Transformation by grouping the 42 cases according to the five binary conditions. Following the thresholds established in the analytical procedure, configurations with consistency ≥ 0.75 and a minimum frequency of one case were assigned an outcome value of 1 and subsequently subjected to Boolean minimization. For Survival/Continuity, five empirically observed minterms met the sufficiency criterion, whereas three minterms met the criterion for Renewal/Transformation. The minimized solutions are presented in the following sections.

4.3 Sufficient Configurations for Survival/Continuity

The Boolean minimization of the five minterms with outcome = 1 produces four configurations sufficient for survival (Table 2). The overall solution consistency is 1.000 and the solution coverage is 0.375, indicating that the four paths jointly cover 37.5% of the 24 survival cases with perfect sufficiency. The remaining 62.5% of survival cases are not covered by any identified sufficient configuration.

Table 2

Sufficient Configurations for Survival/Continuity

Path	Configuration	Consist.	Raw Cov.	Unique Cov.	n	Cases
S1	BRI*~DIG*~NET*~BMC	1.000	0.208	0.167	5	Assoba & Mefi 2021; Burhan et al. 2021; Jaim 2024; Marjanski & Sutkowski 2021; Ojong & Simba 2025
S2	EFF*BRI*~DIG*~NET	1.000	0.125	0.083	3	Kovpak & Lebid 2022; Chapman & Karau 2023; Ojong & Simba 2025
S3	EFF*BRI*~DIG*~BMC	1.000	0.083	0.042	2	Pearce et al. 2022; Ojong & Simba 2025
S4	EFF*~DIG*~NET*~BMC	1.000	0.083	0.042	2	Nouri 2023; Ojong & Simba 2025
	Solution	1.000	0.375			

Note. Elaborated by the author (2026).

Path S1 – Bricolage-driven survival under conditions of scarcity (BRI~*DIG*~NET*~BMC). This is the path with the greatest coverage, representing five cases concentrated in contexts of extreme resource scarcity: social enterprises in Africa (Assoba & Mefi, 2021), restaurants in Pakistan (Burhan et al., 2021), women entrepreneurs in Bangladesh (Jaim, 2024), family firms in Poland (Marjanski & Sutkowski, 2021), and vulnerable SMEs in Africa (Ojong & Simba, 2025).

The configuration is characterized by the presence of Bricolage and the absence of the other mechanisms. Survival is achieved through improvisation and resource recombination,

without digital, relational, or business model reconfiguration. This path reflects adaptation based on internal ingenuity, in which the absence of these mechanisms is constitutive, indicating limitations in capabilities or context for structural change.

Path S2 – Hybrid logic under severe constraint (EFF*BRI*~DIG*~NET). Three cases combine Effectuation and Bricolage in contexts marked by severe disruption and lack of access to digital or network resources: entrepreneurs in geopolitical conflict in Ukraine (Kovpak & Lebid, 2022), small businesses in crisis in the United States (Chapman & Karau, 2023), and vulnerable SMEs in Africa (Ojong & Simba, 2025).

This configuration captures the simultaneous activation of both action logics: entrepreneurs experiment with available means (Effectuation) and improvise with limited resources (Bricolage). The absence of digital transformation and network mobilization indicates that the hybrid logic operates through internal resource orchestration rather than external expansion. This path is theoretically significant as it demonstrates that the co-occurrence of Effectuation and Bricolage identified in the meta-synthesis is not only prevalent but also sufficient for survival when structural mechanisms are unavailable.

Path S3 – Hybrid logic with relational resources (EFF*BRI*~DIG*~BMC). Two cases combine Effectuation and Bricolage with Network Mobilization, while maintaining the absence of digital transformation and business model change: a UK tourism firm navigating Brexit and COVID-19 (Pearce et al., 2022) and African SMEs (Ojong & Simba, 2025). This configuration extends the hybrid path by incorporating relational resources as a facilitating condition. Social ties provide access to information, support, and resources that compensate for the absence of structural reconfiguration in this path. This finding suggests that when firms are unable to digitalize or restructure their business model, relational resources can compensate and enable the hybrid action logic to produce survival.

Path S4 – Pure Effectuation under low complexity (EFF~*DIG*~NET*~BMC). Two cases rely exclusively on Effectuation without Bricolage or any reconfiguration mechanisms: a study on Iranian entrepreneurship (Nouri, 2023) and African SMEs (Ojong & Simba, 2025). This path represents the most restrictive sufficient condition for survival, with the lowest coverage. Entrepreneurs engage in means-based action and iterative experimentation without resource improvisation or structural change, achieving survival through adaptive decision-making under uncertainty. This path is theoretically important as it demonstrates that, in specific contexts, Effectuation alone, without Bricolage, is sufficient for survival, challenging approaches that treat hybrid logic as the dominant mode of crisis adaptation.

4.4 Sufficient Configurations for Renewal/Transformation

Boolean minimization of the three minterms with outcome = 1 yields three sufficient configurations for renewal. The solution consistency is 1.000 and the solution coverage is 1.000, meaning that all five renewal cases are covered by the solution with perfect sufficiency. Paths R1 and R2 each cover two cases (raw and unique coverage = 0.400; consistency = 1.000), while R3 covers one case (raw and unique coverage = 0.200; consistency = 1.000).

Path R1 — Digital-effectual renewal (EFF~*BRI*DIG~*NET*BMC). Two cases demonstrate renewal through the combination of Effectuation, Digital Transformation, and Business Model Change, without Bricolage or network mobilization: women entrepreneurs in Pakistan (Afshan et al., 2021) and digital entrepreneurs in India (Varma & Dutta, 2023). This configuration reflects opportunity creation in the digital environment, involving experimentation with new channels and business model reconfiguration. The absence of Bricolage indicates that renewal is driven by opportunity exploration rather than resource improvisation, while the absence of networks suggests an internally driven process based on effectual experimentation.

Path R2 — Hybrid structural renewal (EFF*BRI*~DIG~*NET*BMC). Two cases achieve renewal through the combination of action logics and Business Model Change, without digital transformation or network expansion: entrepreneurs in geopolitical conflict in Ukraine (Kovpak & Lebid, 2022) and small businesses in the United States (Cook & Karau, 2023). This path represents renewal through structural strategic repositioning, supported by hybrid logics. The combination of experimentation with available means and improvisation with limited resources enables business model reconfiguration, even in the absence of digital or relational support. These cases also appear in Path S2 for survival, indicating that the same hybrid configuration can generate both survival and renewal, highlighting its expanded adaptive potential.

Path R3 — Structural-digital renewal without explicit action logics (~EFF~*BRI*DIG~*NET*BMC). One case demonstrates renewal through Digital Transformation and Business Model Change without explicit evidence of Effectuation or Bricolage: a Brazilian startup (Dib et al., 2024). This path suggests that renewal may occur through structural mechanisms, either due to coding limitations or because, in some contexts, digital reconfiguration is sufficient regardless of the underlying action logic. Although based on a single case, this finding suggests a potential boundary condition of the CEAF, where institutional or sectoral forces reduce the centrality of entrepreneurial action logics in adaptation.

4.5 The Contextual Resilience Pathway: Uncovered Survival Cases

The survival solution covers 37.5% of the 24 cases, leaving 15 unexplained by the identified configurations. These cases show absent or weak DT and BMC and no action-logic conditions, with calibrations indicating “resilience.” This suggests that their survival may reflect institutional persistence, sectoral support, or organizational resilience rather than specific combinations of action mechanisms.

This pattern represents a contextual resilience pathway, in which survival occurs without the analyzed configurations. It includes resilience-oriented adaptation without explicit mechanisms (Audretsch & Moog, 2020; Hutchinson et al., 2021; Patel, 2025), survival associated with government support or ecosystem conditions (Iskakova et al., 2021; Perttunen et al., 2023), and systemic survival beyond specific entrepreneurial actions (Mukherjee et al., 2023; Perttunen et al., 2023).

This finding has theoretical implications for the CEAF The model positions action logics as the mechanism layer linking crisis pressures to adaptation outcomes. The contextual resilience pathway suggests that survival can also occur through routes that bypass the explicit activation of entrepreneurial action logics, relying instead on contextual factors such as institutional support, sectoral munificence, or intrinsic resilience capacities. This does not invalidate the CEAF but rather specifies its scope: the action-logic mechanism layer is necessary for configurations involving explicit adaptive behavior, but not for survival achieved through contextual persistence.

4.6 Comparison Across Outcomes: Configurational Asymmetry

The comparison between the survival and renewal solutions reveals a fundamental configurational asymmetry. Table 3 summarizes the main differences.

Table 3

Configurational Asymmetry Between Survival and Renewal

Feature	Survival/Continuity	Renewal/Transformation
Number of paths	4 (+ contextual resilience)	3
Solution consistency	1.000	1.000

Feature	Survival/Continuity	Renewal/Transformation
Solution coverage	0.375	1.000
Equifinality	High: 4 distinct paths	Moderate: 3 paths, all require BMC
Necessary condition	None (positive); ~DIG, ~NET approach necessity	BMC (positive); ~NET (positive)
Role of Effectuation	Present in 3 of 4 paths (S2, S3, S4)	Present in 2 of 3 paths (R1, R2)
Role of Bricolage	Present in 3 of 4 paths (S1, S2, S3)	Present in 1 of 3 paths (R2)
Role of Digital Transformation	Absent in all sufficient paths	Present in 2 of 3 paths (R1, R3)
Role of Business Model Change	Absent in 3 of 4 paths	Present in all 3 paths (necessary)
Uncovered cases	15 (contextual resilience)	0

Note. Elaborated by the author (2026).

Survival exhibits high equifinality and low coverage, being achieved through multiple pathways, although only a few are explained by identifiable action logics. In contrast, renewal shows perfect coverage and moderate equifinality, with all cases following one of three configurations and requiring Business Model Change.

The role of mechanisms differs across outcomes: Digital Transformation does not appear in survival paths but contributes to renewal when combined with Effectuation and Business Model Change, the latter being necessary in all renewal cases. Effectuation and Bricolage occur in both outcomes, but in distinct combinations, with the former more generally present and the latter more associated with survival. Their combination with Business Model Change (Path R2) demonstrates that the same hybrid logic can produce different outcomes when accompanied by structural reconfiguration.

5 Discussion

The csQCA analysis of 42 studies identifies four configurations sufficient for survival and three for renewal, all with perfect consistency, establishes Business Model Change as a necessary condition for renewal, and reveals a contextual resilience pathway encompassing cases that achieve survival without any identified action-logic conditions.

5.1 Discussion of Findings

Business Model Change is necessary for Renewal but absent from most Survival trajectories, establishing a structural boundary between the outcomes: Survival does not require value-creation reconfiguration, whereas Renewal does, consistent with first- and second-order adaptation (Schindehutte & Morris, 2001; Sarta et al., 2021). Moreover, regardless of the action logics involved, action logic alone is insufficient for Renewal unless translated into structural business model reconfiguration.

The equifinality of survival paths extends the meta-synthesis finding that hybrid Effectuation–Bricolage logic characterizes most crisis adaptation cases. The csQCA shows that Bricolage alone (S1), Effectuation alone (S4), and two hybrid combinations (S2, S3) are sufficient for Survival, suggesting that mixed logic reflects the frequent co-occurrence of uncertainty and scarcity rather than a single necessary combination. This extends Fisher (2012) and Welter et al. (2016) by showing that either logic alone can also be sufficient under specific

conditions and refines the CEAF by demonstrating that its mechanism layer can operate through multiple logical combinations. For Survival, the specific action-logic combination matters less than for Renewal, where BMC differentiates the outcome.

A further finding is the contextual resilience pathway, in which most Survival cases occur without the identified configurations. Rather than reflecting explicit action-logics, these cases suggest survival associated with contextual factors such as institutional support, sectoral munificence, or organizational resilience.

5.2 Theoretical and practical implications

The study contributes to configurational entrepreneurship by demonstrating that crisis adaptation results from combinations of conditions rather than isolated factors, reinforcing the centrality of configurations over variable-oriented approaches (Fiss, 2011; Ragin, 2008; Schneider & Wagemann, 2012; Ott et al., 2017). It shows that the mechanism layer of the CEAF operates configurationally, rather than additively, in producing survival and renewal. Additionally, the study advances the literature on Effectuation and Bricolage by identifying the configurations in which each logic is sufficient. Bricolage supports survival in contexts of scarcity (Baker & Nelson, 2005; Castrogiovanni, 1991; Scazziota et al., 2023), while Effectuation is sufficient only in less constrained environments (Sarasvathy, 2001; Chandler et al., 2011; Jiang & Tornikoski, 2019). Neither logic alone generates renewal without Business Model Change, indicating that different combinations of logics and mechanisms are required for distinct outcomes (Scazziota et al., 2023).

For entrepreneurs and managers, the evidence indicates that survival and renewal are structurally distinct outcomes requiring different combinations of conditions. Survival can occur through multiple pathways, making the specific action logic less important than its activation. In contrast, renewal requires Business Model Change in all configurations, indicating that moving beyond continuity depends on structural reconfiguration rather than operational adjustments. The comparison between Paths S2 and R2 illustrates this distinction: both rely on hybrid logic, but only the configuration incorporating BMC achieves renewal, highlighting the decisive role of structural transformation.

For policymakers and ecosystem actors, the contextual resilience pathway indicates that small business survival in crises largely depends on contextual factors rather than solely on firm-level strategies. Consequently, programs focused exclusively on developing entrepreneurial capabilities may have limited effectiveness. Initiatives that strengthen institutional support, sectoral environments, and ecosystem resources are likely to operate more directly and effectively in sustaining survival.

5.3 Limitations and Directions for Future Research

Several limitations constrain the interpretation of the results. Binary calibration reduces granularity, treating the presence of Effectuation as equivalent across cases, regardless of its intensity. Although csQCA could address this limitation, it requires measurement precision that is incompatible with qualitative data. The limited number of renewal cases results in perfect consistency but restricts generalizability, making these findings exploratory. Additionally, the corpus is predominantly based on COVID-19, which may reflect context-specific patterns. Finally, the use of study-level cases, rather than firm-level cases, may obscure internal variation in condition combinations.

The contextual resilience pathway opens new research directions by indicating that survival may result from institutional conditions, sectoral support, and public policies, independently of action logics. Future csQCA studies incorporating these variables can assess whether this pathway constitutes a distinct configuration or a yet unspecified set of survival

routes, also suggesting that the boundary conditions of the CEAF should be treated as constitutive elements rather than merely moderators.

Additionally, the comparison between Paths S2 and R2 raises a relevant processual question: how do entrepreneurs employing hybrid logic decide whether (or not) to incorporate business model reconfiguration? Although they share the same logical foundation, the paths produce different outcomes depending on the presence of structural reconfiguration. This decision-making process is not captured by configurational analysis, requiring longitudinal and process-tracing studies.

6 Conclusion

This study applied csQCA to a corpus of 42 articles to identify configurations of action logics and adaptive mechanisms sufficient for survival and renewal in crisis contexts. Four configurations for survival and three for renewal were identified, all with perfect consistency. Business Model Change emerges as a necessary condition for renewal, distinguishing it from survival, which occurs through multiple pathways without structural reconfiguration. Additionally, 15 of the 24 survival cases follow a contextual resilience pathway not explained by action logics, indicating that while these logics are sufficient, they are not necessary for survival, whereas they become essential for renewal when combined with business model reconfiguration.

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