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Entrepreneurial Resilience under Environmental Turbulence: A Conceptual Theory of Venture Adaptation and Sustainable Growth

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Abstract

Entrepreneurial ventures increasingly operate under persistent environmental turbulence characterised by technological disruption, market volatility, institutional uncertainty, and evolving stakeholder expectations. Although prior research has advanced understanding of organisational resilience, dynamic capabilities, entrepreneurial learning, and venture adaptation, these perspectives remain theoretically fragmented and provide limited explanation of how entrepreneurial ventures transform environmental adversity into sustainable growth. This conceptual paper addresses this gap by developing a middle-range theory that reconceptualises entrepreneurial resilience as a venture adaptation capability operating under conditions of sustained environmental turbulence. Through an integrative conceptual synthesis of resilience theory, dynamic capability theory, organisational learning, and entrepreneurial action, the proposed framework explains a sequential adaptation mechanism in which entrepreneurial resilience activates adaptive learning, facilitates strategic reconfiguration, and ultimately enables sustainable venture growth. The theory further identifies resource availability, entrepreneurial experience, stakeholder engagement, and institutional support as boundary conditions influencing the effectiveness of resilience-driven adaptation. By positioning entrepreneurial resilience as the central explanatory mechanism linking environmental turbulence to long-term venture development, the proposed model extends existing entrepreneurship and strategic management literature while providing a coherent foundation for future conceptual refinement and empirical validation.

Keywords

entrepreneurial resilience; environmental turbulence; venture adaptation; dynamic capabilities; adaptive learning; sustainable venture growth

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1. Introduction

Entrepreneurial ventures increasingly operate in environments characterised by persistent turbulence rather than temporary instability. Rapid technological disruption, geopolitical tensions, climate-related crises, market volatility, and institutional uncertainty have fundamentally altered the conditions under which entrepreneurs identify opportunities, mobilise resources, and sustain business growth. Unlike episodic environmental shocks, contemporary turbulence represents a continuous state of uncertainty that challenges ventures to repeatedly adjust their strategic actions while simultaneously preserving organisational viability. Earlier research has demonstrated that environmental jolts frequently disrupt established routines, invalidate existing assumptions, and require organisations to reconsider their strategic configurations (Meyer, 1982). Likewise, hostile environments intensify competitive pressure and increase the importance of entrepreneurial strategic behaviour for venture survival (Covin & Slevin, 1989; Miller & Friesen, 1983). More recent evidence further suggests that crises generate multidimensional consequences for entrepreneurial ecosystems, affecting financing, stakeholder relationships, innovation, and organisational continuity (Belitski *et al.*, 2022)

Despite facing similar environmental conditions, entrepreneurial ventures exhibit remarkably different responses to adversity. While some firms rapidly adapt, discover new opportunities, and achieve sustainable growth, others experience strategic rigidity, resource depletion, or eventual failure. Studies conducted during recent global crises illustrate this heterogeneity. Small businesses frequently encounter severe financial constraints and operational disruption, yet many simultaneously exploit flexibility, customer proximity, and entrepreneurial orientation to sustain their operations (Eggers, 2020) Similarly, entrepreneurs often progress through iterative cycles of interpretation, coping, operational adjustment, and persistence rather than relying on a single resilient response (Doern, 2021). Evidence from entrepreneurial ventures also indicates that resilience can produce multiple developmental trajectories, including survival, continuity, and long-term growth, suggesting that resilience should not be understood solely as a mechanism for organisational survival (Purnomo *et al.*, 2021). These divergent outcomes raise an important theoretical question: why do comparable environmental disturbances trigger fundamentally different adaptive responses across entrepreneurial ventures?

The growing literature on resilience provides important insights but remains conceptually fragmented. Early resilience research primarily focused on organisational recovery following adverse events, whereas more recent studies increasingly conceptualise resilience as an adaptive capability involving anticipation, coping, learning, and transformation (Linnenluecke, 2017). Organisational resilience has subsequently been linked with crisis management, strategic renewal, and post-adversity adaptation, expanding its explanatory scope beyond simple recovery (Williams *et al.*, 2017). At the entrepreneurial level, resilience has been associated with entrepreneurs' capacity to cope with uncertainty, reconstruct opportunities, and maintain venture persistence under adverse conditions (Branicki *et al.*, 2018). Duchek (2020) further advances this perspective by conceptualising resilience as a capability consisting of anticipation, coping, and adaptation processes rather than a static organisational attribute. Nevertheless, despite these theoretical advances, resilience continues to be defined inconsistently across individual, organisational, and entrepreneurial levels of analysis, limiting cumulative theory development.

Another important limitation concerns the dominant conceptualisation of entrepreneurial resilience itself. Much of the existing literature explains resilience as either a psychological characteristic of entrepreneurs, a behavioural response to adversity, or an organisational capability that facilitates recovery following disruption (Ayala & Manzano, 2014; Haddoud *et al.*, 2022; Linnenluecke, 2017). Although these perspectives have substantially enriched understanding of entrepreneurial behaviour under uncertainty, they provide only limited explanation of the mechanisms through which resilience is translated into sustained venture adaptation and long-term growth. Recent studies increasingly acknowledge that entrepreneurial resilience evolves through dynamic interactions among entrepreneurs, organisational resources, stakeholder relationships, and broader institutional environments (Shepherd & Williams, 2023; Su & Junge, 2023) However, the literature still lacks an integrated theoretical explanation describing how these elements collectively transform environmental adversity into adaptive strategic change that supports sustainable venture development.

This limitation becomes particularly evident when resilience research is compared with adjacent theoretical traditions. Dynamic capability theory explains how organisations sense environmental change, seize emerging opportunities, and reconfigure resources to sustain competitive advantage under changing conditions (Teece, 2007a; Teece *et al.*, 1997). Similarly, effectuation theory explains how entrepreneurs act under conditions of fundamental uncertainty by leveraging available means, embracing contingencies, and building stakeholder commitments rather than relying on prediction (Sarasvathy, 2001). Entrepreneurial action theory further distinguishes uncertainty from opportunity recognition by explaining how entrepreneurs translate subjective beliefs into action despite incomplete information (McMullen & Shepherd, 2006). While each of these perspectives provides valuable insights into entrepreneurial adaptation, none explicitly conceptualises entrepreneurial resilience as the mechanism that links environmental turbulence with venture adaptation and sustainable growth. Existing theories therefore illuminate important components of entrepreneurial adaptation but stop short of explaining how resilient entrepreneurial processes continuously generate strategic renewal across prolonged periods of environmental turbulence.

The absence of such an integrative explanation represents an important theoretical gap. Existing conceptualisations generally examine resilience as either an antecedent or an outcome, whereas considerably less attention has been devoted to understanding resilience as a dynamic capability that orchestrates learning, resource mobilisation, strategic reconfiguration, and opportunity reconstruction over time. Consequently, current scholarship offers limited explanation regarding why resilience enables certain ventures not merely to survive environmental turbulence but to transform adversity into sustained competitive development. As recent reviews argue, resilience research remains fragmented across multiple disciplinary traditions, resulting in inconsistent definitions, overlapping constructs, and insufficient understanding of the mechanisms connecting resilience with long-term organisational adaptation (Su & Junge, 2023)

Responding to this gap, this conceptual paper develops a middle-range theory that positions entrepreneurial resilience as a venture adaptation capability operating under conditions of environmental turbulence. Rather than conceptualising resilience as a fixed entrepreneurial characteristic or a post-crisis outcome, the proposed framework explains resilience as a dynamic capability that enables entrepreneurs to interpret environmental threats, facilitate adaptive learning, reconfigure strategic resources, and sustain venture growth despite persistent uncertainty. By integrating insights from dynamic capability theory, entrepreneurial resilience, organisational learning, and entrepreneurial action under uncertainty, the proposed theory offers a process-oriented explanation of how entrepreneurial ventures convert environmental adversity into adaptive strategic renewal.

This study makes three principal theoretical contributions. First, it reconceptualises entrepreneurial resilience from a predominantly descriptive construct into a dynamic explanatory mechanism underlying venture adaptation. Second, it integrates previously disconnected theoretical perspectives into a coherent process model linking environmental turbulence, resilience, adaptive learning, strategic reconfiguration, and sustainable venture growth. Third, it advances a middle-range theory specifying the mechanisms and boundary conditions through which entrepreneurial resilience contributes to sustainable entrepreneurial development under prolonged environmental turbulence. By doing so, the paper seeks to extend existing entrepreneurship and strategic management literature beyond explanations centred on crisis survival toward a more comprehensive understanding of how entrepreneurial ventures continuously adapt, renew, and achieve sustainable growth in increasingly uncertain environments.

2. Theoretical Foundations and Conceptual Gaps

2.1 Environmental Turbulence as the Context of Entrepreneurial Adaptation

Environmental turbulence has long been recognised as one of the defining contextual conditions influencing entrepreneurial decision-making and organisational adaptation. Unlike predictable environmental change, turbulence is characterised by rapid, discontinuous, and often unexpected shifts in markets, technologies, institutions, and competitive dynamics that fundamentally alter the assumptions underlying entrepreneurial action. Meyer (1982) introduced the concept of *environmental jolts* to explain how major external disturbances disrupt organisational routines and require firms to abandon incremental adaptation in favour of more substantial strategic change. Similarly, Miller & Friesen (1983) argued that environmental characteristics shape strategic decision-making processes by influencing the degree of flexibility, experimentation, and organisational responsiveness required for survival.

Within entrepreneurship research, environmental turbulence is increasingly understood as a multidimensional phenomenon encompassing technological disruption, market dynamism, institutional instability, geopolitical uncertainty, and economic crises. Such conditions substantially increase uncertainty because entrepreneurs cannot reliably predict future market conditions or evaluate the consequences of strategic alternatives (McMullen & Shepherd, 2006). Consequently, entrepreneurial decisions are often made under imperfect information, limited resources, and evolving stakeholder expectations.

Recent empirical studies reinforce this perspective by demonstrating that turbulence affects entrepreneurial ventures beyond immediate financial consequences. During periods of crisis, ventures simultaneously experience disruptions in supply chains, financing, customer demand, innovation activities, and entrepreneurial ecosystems (Belitski *et al.*, 2022) Similarly, SMEs encounter severe resource constraints while being expected to respond rapidly to changing customer needs and competitive pressures (Eggers, 2020). Rather than representing isolated shocks, environmental turbulence therefore constitutes a persistent condition requiring ventures to repeatedly revise strategic assumptions and organisational configurations.

Importantly, turbulence does not generate uniform organisational responses. Evidence suggests that comparable environmental disruptions produce considerable heterogeneity in venture behaviour. Some organisations successfully identify emerging opportunities, while others become trapped in defensive routines or strategic inertia (Colombo *et al.*, 2021) This variation indicates that environmental turbulence alone cannot adequately explain entrepreneurial outcomes. Instead, theoretical attention must shift toward identifying the internal mechanisms through which ventures interpret environmental disturbances and translate them into adaptive strategic responses.

2.2 Entrepreneurial Resilience: From Recovery to Dynamic Adaptation

Resilience has evolved considerably within management and entrepreneurship scholarship. Earlier conceptualisations primarily viewed resilience as an organisation's capacity to recover from unexpected disruptions and restore previous levels of functioning. Over time, however, resilience has become increasingly associated with continuous adaptation, organisational renewal, and transformation rather than simple recovery (Linnenluecke, 2017).

Within organisational research, resilience is now recognised as a multidimensional capability involving anticipation, coping, learning, and adaptation. Williams *et al.* (2017) argue that resilience should be understood as a dynamic process extending across pre-crisis preparation, crisis response, and post-crisis development. Building upon this perspective, Duchek (2020) conceptualises organisational resilience as a capability comprising three interconnected stages: anticipation, coping, and adaptation. This capability-based perspective moves resilience beyond a static organisational characteristic and positions it as an evolving process that enables organisations to respond effectively to changing environmental conditions.

Entrepreneurship research extends this discussion by focusing on entrepreneurs' ability to maintain venture continuity despite uncertainty and adversity. Entrepreneurial resilience has been associated with persistence, opportunity reconstruction, emotional regulation, and adaptive decision-making under resource constraints (Branicki *et al.*, 2018; Corner *et al.*, 2017). Longitudinal evidence further demonstrates that entrepreneurial resilience contributes not only to venture survival but also to sustained business success over time (Ayala & Manzano, 2014). Recent studies additionally emphasise that resilience emerges through interactions among entrepreneurs, organisational resources, leadership, and stakeholder relationships rather than through individual psychological characteristics alone (Hadjielias *et al.*, 2022; Santoro *et al.*, 2020)

Nevertheless, important conceptual ambiguities remain. Existing studies frequently conceptualise resilience as either an antecedent of performance or an outcome of crisis response, while comparatively little attention has been devoted to explaining how resilience generates adaptive strategic change throughout prolonged environmental turbulence. Consequently, resilience remains insufficiently theorised as an entrepreneurial capability capable of orchestrating learning, resource mobilisation, and strategic renewal over time.

2.3 Venture Adaptation through Dynamic Capabilities and Entrepreneurial Learning

The dynamic capability perspective provides one of the most influential explanations of organisational adaptation under changing environments. Teece *et al.* (1997) define dynamic capabilities as the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments. This perspective was subsequently refined by Eisenhardt & Martin (2000) who conceptualised dynamic capabilities as identifiable organisational processes rather than abstract organisational attributes. Teece (2007b) further elaborated this framework through the microfoundations of sensing, seizing, and reconfiguring, providing a process-oriented explanation of sustained organisational adaptation.

Entrepreneurship scholars have increasingly adopted this perspective to explain venture development under uncertainty. Zahra *et al.* (2006) argue that entrepreneurial opportunities and dynamic capabilities are mutually reinforcing because entrepreneurial decisions shape capability development while environmental change simultaneously influences capability renewal. Subsequent empirical studies confirm that ventures possessing stronger dynamic capabilities are more likely to maintain performance following environmental shocks (Colombo *et al.*, 2021; Dejardin *et al.*, 2023)

However, dynamic capabilities alone do not fully explain entrepreneurial adaptation. Organisational learning provides an essential complementary perspective because adaptation depends upon how entrepreneurs interpret experience, revise assumptions, and transform failure into actionable knowledge. March (1991) distinguished exploration from exploitation, demonstrating that long-term adaptation requires balancing experimentation with the efficient utilisation of existing capabilities. Politis (2005) further argues that entrepreneurial learning depends less upon accumulated experience than upon entrepreneurs' ability to transform experience into knowledge through reflective learning processes. Likewise, Peterson & Wu (2021) demonstrate that entrepreneurial experience alone may generate learning myopia and overconfidence unless supported by strategic reflection and adaptive foresight.

Despite these important contributions, existing theories largely explain capability development and entrepreneurial learning independently. Limited theoretical attention has been devoted to identifying the mechanism through which entrepreneurial resilience activates learning, capability renewal, and strategic reconfiguration during prolonged environmental turbulence. Consequently, the literature remains fragmented across separate streams of resilience, dynamic capabilities, and entrepreneurial learning.

2.4 Sustainable Venture Growth beyond Survival

Entrepreneurship research has traditionally evaluated venture success through indicators such as survival, profitability, sales growth, or employment expansion. While these outcomes remain important, increasing environmental turbulence requires a broader understanding of sustainable venture growth. Growth should not merely represent expansion following recovery but should instead reflect the venture's continuing ability to adapt, innovate, and renew strategic capabilities under changing environmental conditions.

Recent scholarship increasingly differentiates survival from sustainable scaling. Jansen *et al.* (2023) conceptualise scaling as a dynamic organisational capability involving expansion, coordination, and capability renewal over time. Similarly, Coviello *et al.* (2024) distinguish organisational scaling, scalability, and scale-up, arguing that sustainable growth requires continuous organisational adaptation rather than temporary performance improvements. Earlier research likewise demonstrates that venture growth is multidimensional, encompassing interdependent changes in sales, productivity, employment, and profitability rather than isolated financial indicators (Coad *et al.*, 2017)

Entrepreneurship research further suggests that entrepreneurial resilience may generate multiple developmental trajectories beyond immediate survival. Purnomo *et al.* (2021) identify survival, continuity, and growth as distinct resilience outcomes, implying that resilience contributes to long-term venture development through different adaptive pathways. Nevertheless, current literature provides only limited explanation regarding how resilience facilitates the transition from short-term adaptation toward sustainable venture growth.

2.5 Integrative Theoretical Gap

Collectively, the preceding discussion demonstrates that existing theoretical perspectives provide valuable yet incomplete explanations of entrepreneurial adaptation under environmental turbulence. Environmental turbulence literature explains the external pressures confronting entrepreneurial ventures but offers limited understanding of why similar disturbances produce divergent organisational outcomes. Resilience research increasingly conceptualises adaptation as a dynamic process but remains fragmented across psychological, organisational, and entrepreneurial levels of analysis. Dynamic capability theory explains capability reconfiguration but pays relatively limited attention to the resilience processes that initiate and sustain adaptive responses. Entrepreneurial learning literature clarifies knowledge development yet provides only partial explanation of how learning becomes strategically mobilised during adversity. Finally, sustainable growth research identifies desirable venture outcomes without adequately specifying the adaptive mechanisms connecting resilience with long-term organisational development.

The preceding review reveals that existing theories explain complementary aspects of entrepreneurial adaptation but remain insufficient when considered independently. Their limitations collectively justify the need for theoretical integration.

Table 1. Theory Gap Matrix Supporting the Development of the Proposed Middle-Range Theory

Existing Theory	Primary Explanatory Focus	Key Limitation	Contribution to the Proposed Theory
Environmental Turbulence	Explains how external uncertainty and environmental change shape entrepreneurial contexts.	Does not explain how ventures convert turbulence into adaptive strategic responses.	Provides the contextual trigger initiating venture adaptation.
Entrepreneurial Resilience	Explains persistence, coping, recovery, and adaptation under adversity.	Commonly conceptualised as an individual trait or organisational outcome rather than an adaptive mechanism.	Repositioned as the central venture adaptation capability.
Dynamic Capability and Entrepreneurial Learning	Explains capability renewal, organisational learning, and strategic reconfiguration.	Explains adaptation processes but not how resilience activates these processes under prolonged turbulence.	Explains the sequential mechanisms of adaptive learning and strategic reconfiguration.
Sustainable Venture Growth	Explains long-term organisational development and competitive performance.	Emphasises outcomes without identifying the adaptive capability producing sustained growth.	Establishes sustainable venture growth as the cumulative outcome of resilience-driven adaptation.

Source: Developed by the author based on Meyer (1982), March (1991), Politis (2005), Teece (2007), Duchek (2020), Jansen et al. (2023), Coviello et al. (2024), and related literature.

Table 1 synthesises the principal explanatory strengths and limitations of the theoretical perspectives reviewed in this study. Rather than treating these perspectives as competing explanations, the matrix demonstrates their complementary roles while identifying the unresolved mechanism linking environmental turbulence to sustainable venture growth. This synthesis provides the theoretical justification for developing the proposed middle-range theory.

These limitations collectively indicate the need for a more integrative explanation that positions entrepreneurial resilience not merely as an individual attribute or organisational outcome but as a dynamic venture capability that activates adaptive learning, facilitates strategic resource reconfiguration, and ultimately supports sustainable venture growth under conditions of persistent environmental turbulence. Addressing this conceptual gap provides the theoretical foundation for the middle-range theory developed in the following section.

The preceding discussion demonstrates that existing theoretical perspectives provide complementary yet incomplete explanations of venture adaptation. Integrating these perspectives establishes the conceptual foundation required for developing the proposed middle-range theory.

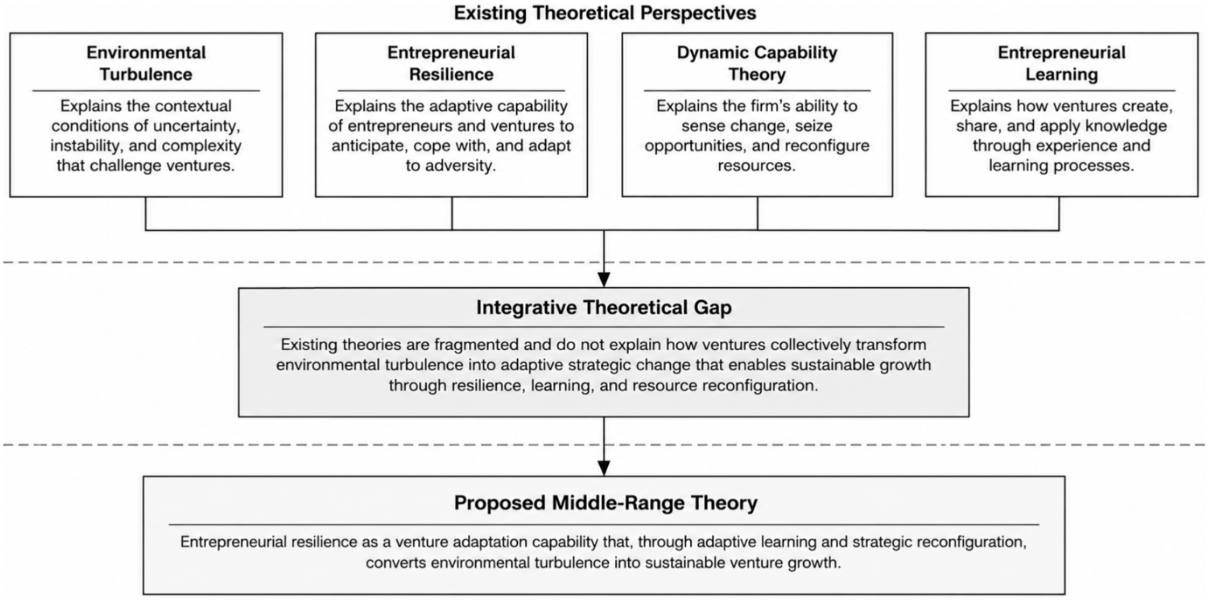

Figure 1. Integration of Existing Theoretical Perspectives into the Proposed Middle-Range Theory
Source: Developed by the author based on Meyer (1982), Duchek (2020), Teece (2007), March (1991), and Politis (2005).

Figure 1 illustrates how previously independent theoretical perspectives collectively motivate the development of the proposed middle-range theory. Rather than replacing existing theories, the framework integrates their complementary insights while addressing the missing explanatory mechanism linking environmental turbulence, entrepreneurial resilience, adaptive learning, and strategic reconfiguration to sustainable venture growth.

3. Theory Building: Entrepreneurial Resilience as a Venture Adaptation Capability

3.1 Domain Specification

The proposed theory is developed to explain how entrepreneurial ventures adapt and achieve sustainable growth under persistent environmental turbulence. The theory focuses on entrepreneurial ventures, particularly start-ups and small and medium-sized enterprises (SMEs), because these organisations generally operate with constrained resources, limited organisational slack, and high exposure to environmental uncertainty. Such characteristics make them especially dependent on entrepreneurial judgement and adaptive capability when responding to environmental change (Colombo *et al.*, 2021; Eggers, 2020)

The domain of the theory is limited to situations in which environmental turbulence represents an enduring contextual condition rather than an isolated organisational crisis. Environmental turbulence includes technological discontinuities, market volatility, institutional instability, economic shocks, and other external disruptions that repeatedly challenge entrepreneurial assumptions and strategic choices (Colombo *et al.*, 2021; Meyer, 1982). Consequently, the proposed theory does not seek to explain organisational behaviour in relatively stable environments where incremental learning and routine strategic planning remain sufficient for maintaining competitive advantage.

The unit of analysis is the entrepreneurial venture. Although entrepreneurs play a central role in interpreting environmental signals and initiating adaptive actions, resilience is conceptualised as a venture-level capability that emerges from interactions among entrepreneurial cognition, organisational learning, strategic decision-making, and resource reconfiguration. This position differs from perspectives that define entrepreneurial resilience primarily as an individual psychological characteristic (Ayala & Manzano, 2014; Haddoud *et* *al.*, 2022). Instead, resilience is viewed as an organisationally embedded capability that enables ventures to transform environmental adversity into coordinated adaptive responses.

The theory further assumes that entrepreneurial adaptation is a continuous process rather than a sequence of isolated reactions. Environmental turbulence repeatedly creates new threats and opportunities, requiring ventures to revise assumptions, mobilise resources, and experiment with alternative strategic configurations over time. Consequently, resilience should be understood as an adaptive capability that continuously supports strategic renewal rather than a temporary response activated only after crises occur (Duchek, 2020; Shepherd & Williams, 2023)

3.2 Core Constructs

The proposed middle-range theory consists of five interrelated constructs: environmental turbulence, entrepreneurial resilience, adaptive learning, strategic reconfiguration, and sustainable venture growth. These constructs collectively explain how entrepreneurial ventures transform environmental uncertainty into long-term organisational development.

Environmental turbulence represents the external context that generates uncertainty, disrupts established routines, and creates the need for strategic adaptation. Previous research consistently demonstrates that environmental jolts alter market structures, customer behaviour, institutional arrangements, and competitive dynamics, thereby increasing the complexity of entrepreneurial decision-making (Belitski *et al.*, 2022; Meyer, 1982)

Entrepreneurial resilience constitutes the central explanatory construct of the proposed theory. Rather than conceptualising resilience as persistence alone, this study defines entrepreneurial resilience as a dynamic venture capability enabling entrepreneurs to anticipate environmental threats, regulate organisational responses, maintain adaptive functioning, and initiate strategic renewal under prolonged uncertainty. This conceptualisation extends Duchek's (2020) capability-based perspective by positioning resilience as the mechanism connecting environmental turbulence with venture adaptation.

Adaptive learning refers to the venture's ability to interpret environmental feedback, evaluate previous actions, revise assumptions, and generate new strategic knowledge. This construct integrates organisational learning theory with entrepreneurial learning by recognising that successful adaptation depends not merely on accumulated experience but on the capability to transform experience into actionable knowledge (March, 1991; Politis, 2005). Adaptive learning therefore represents the cognitive mechanism through which resilience generates organisational renewal.

Strategic reconfiguration describes deliberate modifications of organisational resources, capabilities, routines, business models, and stakeholder relationships in response to changing environmental conditions. Dynamic capability theory identifies sensing, seizing, and reconfiguring as the primary processes through which organisations renew competitive advantage (Teece, 2007) Within the proposed framework, strategic reconfiguration constitutes the behavioural manifestation of entrepreneurial resilience following adaptive learning.

Finally, sustainable venture growth represents the long-term outcome of repeated adaptive cycles. Rather than defining growth solely through financial expansion, sustainable venture growth reflects the venture's continuing ability to maintain competitiveness, renew strategic capabilities, and expand organisational value despite persistent environmental turbulence (Coviello *et al.*, 2024; Jansen *et al.*, 2023)

The proposed theory relies on five interrelated constructs that collectively explain venture adaptation. Each construct performs a distinct theoretical function while contributing to the sequential mechanism underpinning sustainable growth.

Table 2. Construct Architecture of the Proposed Middle-Range Theory

Core Construct	Conceptual Meaning	Function in the Theory	Position in the Adaptation Process
Environmental Turbulence	Persistent external uncertainty arising from technological, market, institutional, and economic change.	Creates the contextual conditions that trigger venture adaptation.	Contextual trigger
Entrepreneurial Resilience	Venture capability enabling anticipation, coping, adaptation, and strategic renewal under adversity.	Serves as the central explanatory mechanism connecting turbulence with adaptation.	Core adaptive capability
Adaptive Learning	Capability to transform environmental experience into revised strategic knowledge.	Converts resilience into organisational understanding and informed strategic responses.	Cognitive mechanism
Strategic Reconfiguration	Renewal of organisational resources, routines, capabilities, and business models.	Translates learning into observable organisational adaptation.	Behavioural mechanism
Sustainable Venture Growth	Continuous organisational development through capability renewal and long-term competitiveness.	Represents the cumulative outcome of repeated adaptive processes.	Ultimate theoretical outcome

Source: Developed by the author based on Meyer (1982), March (1991), Politis (2005), Teece (2007), Duchek (2020), Jansen et al. (2023), Coviello et al. (2024), and related literature.

Table 2 organises the core constructs according to their conceptual meanings and theoretical functions within the proposed framework. Rather than presenting isolated definitions, the table clarifies how each construct contributes to the sequential adaptation process, from contextual trigger through adaptive capability and organisational mechanisms to sustainable venture growth, thereby reinforcing the internal coherence of the proposed middle-range theory.

3.3 Proposed Mechanism

The central argument of the proposed theory is that entrepreneurial resilience functions as the missing mechanism linking environmental turbulence with sustainable venture growth. Existing theories generally explain environmental change, organisational capabilities, entrepreneurial action, or learning separately. The present framework integrates these perspectives into a sequential adaptation process through which ventures repeatedly convert environmental adversity into strategic renewal.

The mechanism begins when environmental turbulence disrupts strategic assumptions and creates uncertainty in markets, technologies, customer behaviour, and institutional conditions. The resulting ambiguity weakens conventional decision rules and necessitates adaptive responses. Earlier studies demonstrate that environmental jolts force organisations to reconsider established routines and strategic priorities (Meyer, 1982), while entrepreneurial uncertainty complicates opportunity evaluation and action (McMullen & Shepherd, 2006). Under these conditions, ventures that rely exclusively on routine responses frequently experience strategic rigidity and declining performance.

Entrepreneurial resilience determines whether environmental turbulence becomes a source of organisational decline or strategic renewal. Rather than responding defensively, resilient ventures maintain cognitive flexibility, preserve organisational functioning, and remain capable of interpreting changing environmental signals. This perspective differs fundamentally from threat-rigidity theory, which argues that severe threats frequently narrow information processing and increase centralised control (Staw *et al.*, 1981). Entrepreneurial resilience therefore operates by preventing rigidity and maintaining the organisational capacity necessary for adaptive response.

Resilience alone does not ensure successful adaptation but must activate adaptive learning. Entrepreneurs reinterpret environmental feedback, reassess prior decisions, and generate new strategic knowledge. Organisational learning research further suggests that effective adaptation depends on balancing the exploration of new opportunities with the exploitation of existing capabilities (March, 1991). Likewise, entrepreneurial learning research demonstrates that experience contributes to venture development only when entrepreneurs engage in reflective interpretation rather than automatic repetition of prior behaviour (Peterson & Wu, 2021; Politis, 2005). Adaptive learning therefore transforms resilience from a reactive coping mechanism into a proactive source of organisational knowledge.

Knowledge generated through adaptive learning subsequently enables strategic reconfiguration. Entrepreneurs begin to modify organisational routines, recombine available resources, redesign business models, strengthen stakeholder relationships, or develop new capability configurations that better align with environmental conditions. This process closely reflects the sensing, seizing, and reconfiguring logic proposed by (Teece, 2007), the proposed theory argues that these dynamic capabilities become effective only when activated through entrepreneurial resilience and adaptive learning. Recent evidence supports this interpretation by demonstrating that ventures possessing stronger dynamic capabilities adapt more successfully following environmental jolts and sustain superior performance during prolonged turbulence (Colombo *et al.*, 2021; Dejardin *et al.*, 2023)

The final stage of the mechanism is sustainable venture growth. Repeated cycles of resilience, adaptive learning, and strategic reconfiguration renew organisational capabilities, enabling ventures to strengthen competitiveness and achieve long-term growth. Sustainable growth thus emerges from continuous adaptive capability rather than isolated entrepreneurial success, explaining why some ventures convert prolonged adversity into developmental opportunities while others remain focused on short-term survival.

The proposed explanation emphasises a sequential adaptation process through which entrepreneurial ventures progressively transform persistent environmental turbulence into sustainable growth via interconnected organisational capabilities and learning dynamics.

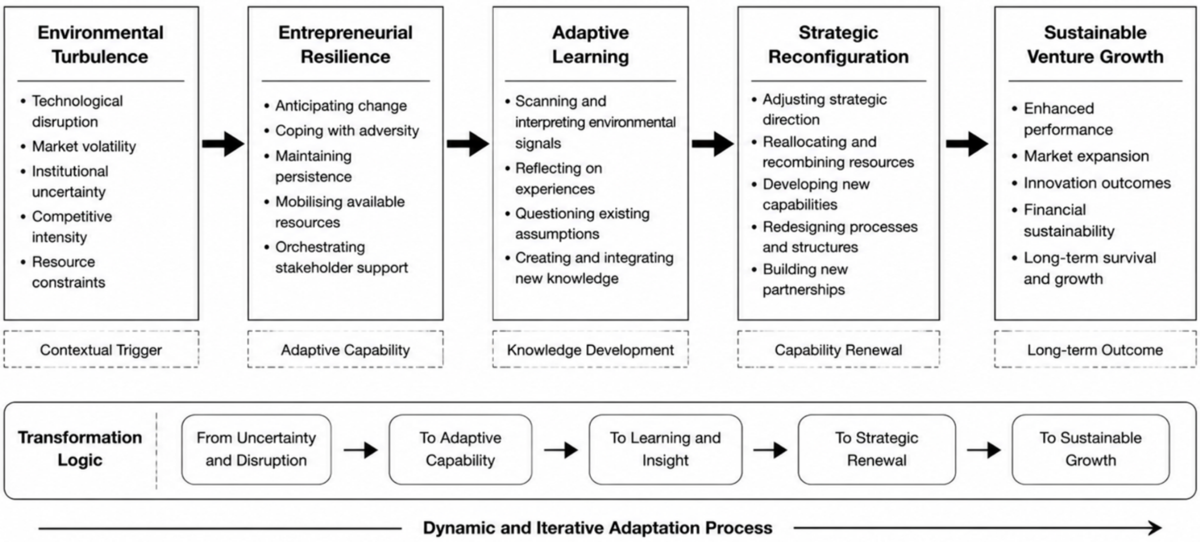

Figure 2. Venture Adaptation Process under Environmental Turbulence
Source: Developed by the author based on Meyer (1982), March (1991), Politis (2005), Teece (2007), Duchek (2020), Colombo et al. (2021), and Jansen et al. (2023).

Figure 2 illustrates the sequential mechanism through which entrepreneurial ventures convert environmental turbulence into sustainable venture growth. The framework positions entrepreneurial resilience as the adaptive capability that activates learning, enables strategic reconfiguration, and ultimately supports long-term organisational renewal. The process highlights cumulative capability development rather than isolated responses to environmental disruption.

3.4 Boundary Conditions

Although the proposed theory argues that entrepreneurial resilience facilitates venture adaptation under environmental turbulence, its effectiveness is unlikely to be universal across all entrepreneurial contexts. Consistent with middle-range theorising, the explanatory power of the proposed framework depends on several boundary conditions that influence the extent to which resilience can be translated into adaptive learning, strategic reconfiguration, and sustainable venture growth.

The first boundary condition concerns resource availability. Entrepreneurial resilience may stimulate adaptive behaviour, yet strategic adaptation often requires minimum levels of financial, human, and technological resources. Severe financial constraints can restrict experimentation, delay strategic renewal, and reduce the feasibility of capability reconfiguration despite high levels of resilience. Research on entrepreneurial finance during crises demonstrates that declining access to external capital substantially limits ventures' adaptive capacity, particularly during prolonged uncertainty (Brown *et al.*, 2020; Brown & Rocha, 2020). Likewise, although bootstrapping strategies may partially compensate for financial shortages, their effectiveness depends on venture characteristics and the severity of environmental disruption (Block *et al.*, 2022) Resource availability therefore determines whether resilience can be translated into meaningful organisational change.

The second boundary condition is entrepreneurial experience. Experience provides entrepreneurs with accumulated knowledge that may improve environmental interpretation and strategic judgement. However, previous studies indicate that experience does not automatically enhance adaptation. Excessive reliance on prior success may create cognitive rigidity, overconfidence, and learning myopia, thereby limiting the effectiveness of resilience (Levinthal & March, 1993; Peterson & Wu, 2021). Consequently, entrepreneurial experience strengthens venture adaptation only when accompanied by reflective learning and openness to revising previous assumptions.

The third boundary condition involves stakeholder and social support. Entrepreneurial ventures rarely adapt independently because strategic renewal frequently depends upon collaboration with customers, suppliers, investors, business partners, and entrepreneurial ecosystems. Social capital enhances entrepreneurs' access to information, legitimacy, and complementary resources, thereby expanding the adaptive potential generated by entrepreneurial resilience (Dimitriadis, 2021). Similarly, stakeholder engagement strengthens the relationship between entrepreneurial resilience and venture success by facilitating resource mobilisation and strategic implementation (Santoro *et al.*, 2020). Digital communities and entrepreneurial ecosystems further contribute by enabling entrepreneurs to obtain advice, reinterpret emerging challenges, and identify alternative strategic responses (Meurer *et al.*, 2022)

The final boundary condition concerns market orientation and institutional support. Dynamic capabilities become more effective when ventures actively monitor customer needs, competitor behaviour, and market developments (Hernández-Linares *et al.*, 2021) Likewise, supportive institutional environments provide access to financing, policy assistance, business networks, and entrepreneurial infrastructure that facilitate strategic adaptation (Belitski *et al.*, 2022). Conversely, weak institutional support may reduce the capacity of even highly resilient ventures to sustain long-term growth. Accordingly, the proposed theory assumes that entrepreneurial resilience produces stronger adaptive outcomes when supported by favourable organisational and institutional conditions.

Collectively, these boundary conditions reinforce that entrepreneurial resilience should not be interpreted as a universally sufficient explanation for venture success. Rather, resilience operates as the central adaptive capability whose effectiveness depends upon the availability of complementary organisational, relational, and contextual resources.

3.5 Proposition Development

The theoretical arguments developed above suggest a sequential adaptation process linking environmental turbulence with sustainable venture growth through entrepreneurial resilience. The following propositions formalise this explanatory logic.

Proposition 1.
Environmental turbulence positively stimulates the activation of entrepreneurial resilience because increasing uncertainty requires ventures to maintain adaptive functioning, preserve cognitive flexibility, and prepare for strategic renewal (Duchek, 2020; Meyer, 1982; Shepherd & Williams, 2023)

This proposition departs from deterministic perspectives that portray turbulence solely as a threat. Instead, environmental disturbances create conditions under which entrepreneurial resilience becomes an essential adaptive capability.

Proposition 2.
Entrepreneurial resilience positively influences adaptive learning by enabling entrepreneurs to interpret environmental feedback, reassess prior assumptions, and transform adversity into actionable knowledge (March, 1991; Politis, 2005; Shepherd, 2003)

Resilient ventures are expected to engage more actively in reflective learning rather than merely restoring previous routines, thereby increasing their capacity for strategic renewal.

Proposition 3.
Adaptive learning positively influences strategic reconfiguration because newly generated knowledge enables entrepreneurs to redesign organisational resources, routines, business models, and stakeholder relationships in response to changing environmental conditions (Colombo *et al.*, 2021; Teece, 2007)

Learning therefore functions as the immediate mechanism translating resilience into observable organisational adaptation.

Proposition 4.
Strategic reconfiguration positively influences sustainable venture growth by strengthening organisational capability renewal, competitive responsiveness, and long-term value creation under persistent environmental turbulence (Coviello *et al.*, 2024; Jansen *et al.*, 2023)

This proposition distinguishes sustainable growth from temporary recovery by emphasising continuous capability development rather than short-term performance improvement.

Proposition 5.
Resource availability, entrepreneurial experience, stakeholder engagement, and institutional support strengthen the relationship between entrepreneurial resilience and venture adaptation, enabling more effective adaptive outcomes (Brown & Rocha, 2020; Dimitriadis, 2021; Hernández-Linares *et al.*, 2021; Santoro *et al.*, 2020)

The moderating perspective recognises that resilience alone cannot fully explain venture adaptation because successful strategic renewal requires complementary organisational and environmental resources.

Taken together, the five propositions describe entrepreneurial resilience as a venture-level capability that orchestrates a continuous sequence of adaptive learning and strategic reconfiguration, ultimately enabling sustainable venture growth despite persistent environmental turbulence. Unlike existing perspectives that position resilience primarily as either an antecedent or an outcome, the proposed framework conceptualises resilience as the central explanatory mechanism connecting environmental uncertainty with long-term entrepreneurial development.

The proposed propositions collectively define the causal logic underlying venture adaptation. Each proposition contributes a distinct theoretical relationship that progressively builds the proposed middle-range explanation of sustainable growth.

Table 3. Proposition Architecture of the Proposed Middle-Range Theory

	Proposition & Theoretical Relationship	**Underlying Causal Logic**	**Supporting Literature**
P1	Environmental Turbulence → Entrepreneurial Resilience	Persistent environmental uncertainty stimulates the activation of venture resilience as an adaptive capability.	Meyer (1982); Duchek (2020); Shepherd & Williams (2023)
P2	Entrepreneurial Resilience → Adaptive Learning	Resilience enables ventures to reinterpret environmental feedback and generate revised strategic knowledge.	March (1991); Politis (2005); Shepherd (2003)
P3	Adaptive Learning → Strategic Reconfiguration	Newly acquired knowledge supports the renewal of organisational resources, routines, and business models.	Teece (2007); Colombo *et al.* (2021)
P4	Strategic Reconfiguration → Sustainable Venture Growth	Continuous capability renewal strengthens long-term competitiveness and sustainable organisational development.	Jansen *et al.* (2023); Coviello *et al.* (2024)
P5	Boundary Conditions × Resilience → Venture Adaptation	Resource availability, entrepreneurial experience, stakeholder engagement, and institutional support strengthen the effectiveness of resilience-driven adaptation.	Brown & Rocha (2020); Santoro *et al.* (2020); Dimitriadis (2021); Hernández-Linares *et al.* (2021)

Source: Developed by the author.

Table 3 summarises the proposition architecture underpinning the proposed middle-range theory. Rather than listing relationships alone, the table clarifies the causal reasoning associated with each proposition, demonstrating how environmental turbulence initiates resilience-driven adaptation, which progresses through adaptive learning and strategic reconfiguration before culminating in sustainable venture growth under relevant boundary conditions.

The proposed propositions collectively establish a coherent theoretical framework explaining venture adaptation. The integrated model synthesises the causal relationships and contextual contingencies underlying sustainable entrepreneurial development under persistent turbulence.

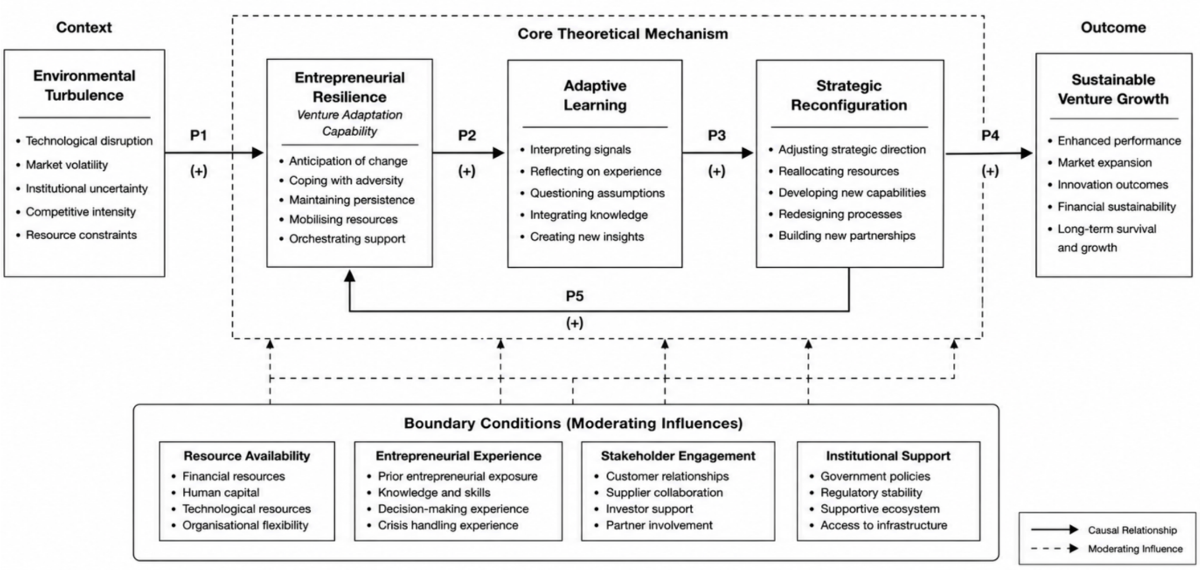

Figure 3. Proposed Middle-Range Theory of Entrepreneurial Resilience under Environmental Turbulence

Source: Developed by the author based on Meyer (1982), March (1991), Politis (2005), Teece (2007), Duchek (2020), Shepherd and Williams (2023), Colombo et al. (2021), Jansen et al. (2023), Coviello et al. (2024), and related literature.

Figure 3 presents the proposed middle-range theory by integrating the article's core constructs, causal relationships, and boundary conditions into a unified conceptual framework. The model positions entrepreneurial resilience as the central venture adaptation capability linking environmental turbulence to sustainable venture growth through adaptive learning and strategic reconfiguration, while recognising the contextual factors that shape the strength of these adaptive relationships.

The proposed model portrays entrepreneurial resilience as the central venture capability that activates adaptive learning and enables strategic reconfiguration. Sustainable venture growth emerges through repeated cycles of capability renewal rather than through isolated responses to environmental shocks. By explicitly incorporating boundary conditions, the framework recognises that resilience operates within organisational and institutional contexts that either facilitate or constrain venture adaptation.

4. Discussion and Theoretical Contributions

4.1 Theoretical Contributions

The proposed theory advances the entrepreneurship literature by repositioning entrepreneurial resilience from a descriptive construct into a dynamic explanatory mechanism that connects environmental turbulence with sustainable venture growth. Previous studies have predominantly conceptualised resilience as an individual characteristic, an organisational capability for recovery, or an outcome of successful crisis management (Duchek, 2020; Linnenluecke, 2017; Williams *et al.*, 2017) Although these perspectives have significantly enriched understanding of resilience, they provide limited explanation of how resilience generates continuous venture adaptation during prolonged environmental turbulence. The present theory addresses this limitation by conceptualising entrepreneurial resilience as a venture-level adaptive capability that activates learning, facilitates strategic resource reconfiguration, and enables sustained organisational renewal.

A second contribution concerns the integration of several previously disconnected theoretical streams. Existing studies on dynamic capabilities, entrepreneurial learning, effectuation, and organisational resilience have generally developed in parallel, each explaining only part of the entrepreneurial adaptation process. Dynamic capability theory explains capability renewal through sensing, seizing, and reconfiguring (Teece, 2007), while entrepreneurial learning research focuses on knowledge creation through experience and reflection (March, 1991; Politis, 2005). Similarly, effectuation theory explains entrepreneurial action under uncertainty (Sarasvathy, 2001), whereas resilience research emphasises coping and recovery from adversity (Duchek, 2020). The proposed framework integrates these perspectives into a coherent causal sequence in which entrepreneurial resilience functions as the capability that transforms environmental disturbances into adaptive learning and strategic renewal. Consequently, the theory provides a more comprehensive explanation of venture adaptation than any single theoretical perspective considered independently.

The third contribution lies in extending the application of dynamic capability theory within entrepreneurship. Dynamic capability research has traditionally concentrated on organisational processes responsible for capability renewal (Eisenhardt & Martin, 2000; Teece *et al.*, 1997) However, comparatively little attention has been devoted to explaining why some entrepreneurial ventures successfully activate these capabilities while others fail to do so despite facing similar environmental conditions. By positioning entrepreneurial resilience as the capability that initiates and sustains adaptive processes, the proposed theory complements rather than replaces the dynamic capability perspective. It therefore contributes a missing explanatory layer linking environmental turbulence with capability activation.

Finally, the proposed framework contributes to the growing literature on sustainable entrepreneurial development. Much entrepreneurship research continues to evaluate resilience primarily through survival or short-term performance outcomes (Ayala & Manzano, 2014; Purnomo *et al.,* 2021) In contrast, the present theory argues that resilience contributes to sustainable venture growth because repeated cycles of adaptive learning and strategic reconfiguration gradually accumulate into organisational capability renewal. Sustainable growth is therefore conceptualised as an evolutionary outcome of continuous adaptation rather than merely a consequence of successful crisis recovery.

4.2 Implications for Theory Development

Beyond its immediate conceptual contributions, the proposed theory offers several implications for future theory development in entrepreneurship and strategic management. First, it suggests that entrepreneurial resilience should be treated as a process capability rather than a stable organisational attribute. Viewing resilience as an evolving capability shifts theoretical attention from identifying static determinants of resilience toward understanding how adaptive processes unfold over time. This perspective aligns resilience research more closely with dynamic capability theory while preserving its distinctive emphasis on adversity, uncertainty, and organisational renewal.

Second, the theory highlights the importance of temporal sequencing in entrepreneurial adaptation. Existing studies frequently investigate direct relationships between resilience and organisational performance, implicitly assuming that resilience immediately produces favourable outcomes. The present framework instead proposes that sustainable venture growth emerges through a sequence of intermediate mechanisms consisting of adaptive learning and strategic reconfiguration. Recognising this sequence encourages future conceptual and empirical research to examine mediation processes rather than relying solely on direct-effect models.

Third, the proposed framework emphasises multilevel interactions in entrepreneurial adaptation. Entrepreneurial resilience originates from entrepreneurial cognition and decision-making but becomes organisationally meaningful only after it influences collective learning, capability development, and strategic action. This perspective extends previous work suggesting that resilience develops through interactions between entrepreneurs, organisations, and broader entrepreneurial ecosystems (Branicki *et al.*, 2018; Khurana *et al.*, 2022) Consequently, future theory development should move beyond single-level explanations and explore how resilience evolves across individual, organisational, and ecosystem levels.

Finally, the explicit incorporation of boundary conditions contributes to contingency-based theory development. Rather than assuming universally positive effects of resilience, the proposed framework recognises that resource availability, entrepreneurial experience, stakeholder engagement, and institutional support shape the effectiveness of adaptive processes. This perspective encourages future scholars to investigate contextual variation rather than searching for universally applicable resilience models.

4.3 Managerial Implications

The proposed theory also offers practical implications for entrepreneurs, managers, entrepreneurial support organisations, and policy makers. For entrepreneurs, the framework suggests that resilience should not be interpreted solely as persistence or psychological endurance. Instead, resilience should be deliberately developed as an organisational capability that promotes continuous learning, strategic experimentation, and capability renewal. Entrepreneurs who systematically analyse environmental changes, question existing assumptions, and encourage organisational learning are more likely to transform environmental turbulence into opportunities for strategic renewal than those relying primarily on persistence.

For venture managers, the proposed model highlights the importance of integrating learning routines into everyday strategic decision-making. Environmental turbulence continuously generates new information that can either reinforce existing assumptions or reveal emerging opportunities. Organisational practices such as post-project reviews, structured failure analysis, knowledge-sharing mechanisms, and strategic reflection sessions may strengthen adaptive learning and improve the effectiveness of subsequent strategic reconfiguration (Politis, 2005). In this respect, resilience becomes embedded within organisational routines rather than remaining dependent on individual entrepreneurial qualities.

Entrepreneurial support organisations, including incubators, accelerators, investors, and business development agencies, may also benefit from the proposed framework. Traditional support programmes often emphasise financing or technical assistance, whereas the present theory suggests that interventions should additionally strengthen adaptive learning capabilities, stakeholder mobilisation, and strategic experimentation. Such programmes may increase entrepreneurs' capacity to convert environmental uncertainty into organisational renewal rather than merely improving short-term survival.

For policy makers, the theory indicates that institutional support contributes to entrepreneurial resilience by providing conditions that facilitate venture adaptation. Policies that improve access to entrepreneurial finance, innovation networks, digital infrastructure, mentoring programmes, and collaborative ecosystems may strengthen the adaptive capability of entrepreneurial ventures during prolonged environmental turbulence (Belitski *et al.*, 2022). Consequently, entrepreneurship policy should focus not only on crisis recovery but also on building adaptive capacity that enables sustainable entrepreneurial development.

4.4 Boundary and Limitations

Several limitations should be acknowledged. First, this study develops a conceptual theory without empirical validation. Although the proposed relationships are grounded in established theoretical perspectives and supported by existing empirical findings, future studies are required to examine the proposed mechanisms across different entrepreneurial contexts.

Second, the theory is primarily developed for entrepreneurial ventures operating under conditions of sustained environmental turbulence. Its explanatory power may therefore be more limited in mature organisations operating in relatively stable environments where routine capability development predominates over strategic adaptation.

Third, the proposed framework concentrates on venture-level adaptation and does not explicitly model feedback loops between organisational outcomes and subsequent entrepreneurial cognition. Future theory development may extend the framework by incorporating recursive adaptation processes and dynamic feedback mechanisms operating across multiple adaptation cycles.

Finally, the present theory deliberately adopts a parsimonious structure to facilitate cumulative theory building. Other potentially relevant factors, including entrepreneurial identity, emotional regulation, digital capability, and cross-industry innovation, are not explicitly incorporated into the proposed model. These constructs may represent promising avenues for extending the theory without altering its central explanatory mechanism. Consequently, the proposed middle-range theory should be viewed as a foundational conceptual framework that invites further refinement through empirical testing and theoretical elaboration rather than as a complete explanation of entrepreneurial adaptation under all forms of environmental turbulence.

5. Future Research Agenda

The proposed middle-range theory provides a foundation for future conceptual refinement and empirical validation. Because entrepreneurial resilience is conceptualised as a dynamic venture capability that links environmental turbulence with sustainable venture growth through adaptive learning and strategic reconfiguration, several research opportunities emerge.

First, future empirical studies should examine the sequential mechanism proposed in this paper. Rather than investigating direct relationships between entrepreneurial resilience and venture performance, researchers should evaluate whether adaptive learning and strategic reconfiguration operate as complementary mediating processes. Longitudinal research designs would be particularly valuable because entrepreneurial adaptation unfolds through repeated interactions with changing environmental conditions rather than isolated events (Duchek, 2020; Teece, 2007)

Second, future studies should investigate the contextual boundaries of the proposed theory. The present framework suggests that resource availability, entrepreneurial experience, stakeholder engagement, and institutional support influence the effectiveness of entrepreneurial resilience. Comparative studies across industries, countries, and entrepreneurial ecosystems may clarify how these contextual conditions strengthen or constrain venture adaptation under environmental turbulence (Belitski *et al.*, 2022; Santoro *et al.*, 2020)

Third, researchers may extend the proposed theory by incorporating additional organisational capabilities that complement entrepreneurial resilience. Digital capability, innovation capability, entrepreneurial orientation, and absorptive capacity may interact with resilience in shaping adaptive learning and strategic renewal. Examining these interactions would contribute to a more comprehensive understanding of capability development in entrepreneurial ventures while preserving the central explanatory role of resilience.

Finally, future conceptual research may further elaborate the dynamic nature of entrepreneurial resilience by modelling recursive feedback relationships. Sustainable venture growth may generate new organisational knowledge, strengthen adaptive capabilities, and improve future responses to environmental turbulence. Such recursive processes would enrich the proposed middle-range theory by explaining how entrepreneurial resilience evolves over multiple adaptation cycles rather than functioning as a static organisational capability.

The proposed theory opens several opportunities for conceptual refinement and empirical examination. Future studies should extend, validate, and contextualise the framework to strengthen cumulative theory development and explanatory scope.

Table 4. Future Research Agenda for Extending the Proposed Middle-Range Theory

Research Priority	Future Research Focus	Suggested Research Design	Expected Theoretical Contribution
Mechanism Validation	Examine whether adaptive learning and strategic reconfiguration sequentially mediate the resilience–growth relationship.	Longitudinal studies, structural equation modelling, or process tracing.	Validates the proposed causal mechanism and strengthens middle-range theory.
Boundary Conditions	Investigate how resource availability, entrepreneurial experience, stakeholder engagement, and institutional support shape venture adaptation.	Cross-country, cross-industry, and comparative research.	Refines contextual boundaries and improves the explanatory scope of the theory.
Capability Integration	Explore interactions between entrepreneurial resilience and complementary capabilities such as digital capability, absorptive capacity, innovation capability, and entrepreneurial orientation.	Multi-theory conceptual studies and empirical capability research.	Extends the theoretical framework by integrating complementary organisational capabilities.
Dynamic Theory Extension	Model recursive adaptation cycles in which sustainable venture growth reinforces future resilience and capability renewal.	Longitudinal case studies, process research, and system dynamics modelling.	Advances the theory from a linear process to a dynamic evolutionary model.

Source: Developed by the author.

The proposed research agenda positions entrepreneurial resilience as an evolving capability rather than a fixed organisational attribute. Future studies that examine the proposed mechanisms, contextual contingencies, and dynamic feedback processes will contribute to cumulative theory development and further refine the explanatory scope of entrepreneurial resilience under conditions of environmental turbulence.

6. Conclusion

This study addressed a fundamental question in entrepreneurship research: why do entrepreneurial ventures facing similar environmental turbulence exhibit markedly different adaptive trajectories and long-term growth outcomes? Although previous research has generated valuable insights into environmental turbulence, organisational resilience, dynamic capabilities, and entrepreneurial learning, these perspectives remain fragmented and provide only partial explanations of how ventures transform persistent uncertainty into sustainable development. Responding to this knowledge gap, this study developed a middle-range theory that conceptualises entrepreneurial resilience as a venture adaptation capability that enables entrepreneurial ventures to interpret environmental turbulence, activate adaptive learning, reconfigure strategic resources, and ultimately achieve sustainable venture growth.

The proposed theory advances existing scholarship in several important ways. First, it reconceptualises entrepreneurial resilience from a predominantly descriptive construct into a dynamic explanatory mechanism that links environmental turbulence with long-term organisational adaptation. Second, it integrates insights from entrepreneurial resilience, dynamic capability theory, organisational learning, and entrepreneurial action into a coherent process model that explains how adaptive capability develops through sequential learning and strategic reconfiguration. Third, by identifying explicit boundary conditions, including resource availability, entrepreneurial experience, stakeholder engagement, and institutional support, the framework offers a more nuanced explanation of when and how entrepreneurial resilience is most likely to generate sustainable venture growth. Collectively, these theoretical advances extend current entrepreneurship literature beyond crisis recovery and survival by explaining resilience as a continuous capability supporting strategic renewal under persistent environmental turbulence.

The proposed framework also offers meaningful practical implications. For entrepreneurs and venture managers, it emphasises that resilience should be deliberately cultivated as an organisational capability embedded in learning, experimentation, and strategic renewal rather than viewed solely as individual persistence. For entrepreneurial support organisations and policy makers, the framework highlights the importance of strengthening entrepreneurial ecosystems, institutional support, and resource accessibility to enhance ventures' adaptive capacity and long-term competitiveness.

Despite these contributions, this study remains subject to several limitations. As a conceptual theory-building study, the proposed relationships have not yet been empirically validated, and the framework is primarily developed for entrepreneurial ventures operating under sustained environmental turbulence. Future research should therefore examine the proposed propositions using longitudinal and comparative research designs, investigate the recursive evolution of entrepreneurial resilience across multiple adaptation cycles, and explore how complementary capabilities such as digital capability, absorptive capacity, and innovation capability interact with resilience in shaping venture adaptation.

By positioning entrepreneurial resilience as the central capability that orchestrates adaptive learning and strategic reconfiguration, this study provides a theoretically integrated explanation of venture adaptation under environmental turbulence. As entrepreneurial environments become increasingly volatile, uncertain, and complex, understanding resilience as a dynamic capability rather than merely a recovery mechanism offers a stronger foundation for cumulative theory development and provides a more robust conceptual lens for explaining how entrepreneurial ventures continuously renew themselves and achieve sustainable growth.

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