



## Learning Under Persistent Market Volatility: A Conceptual Model of Organizational Learning Cycles and Strategic Renewal

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### Abstrak

*Persistent market volatility has become a structural feature of contemporary competitive environments, yet its relationship with strategic adaptation remains theoretically under-specified. While prior research emphasizes dynamic capabilities, resilience, and structural reconfiguration, comparatively less attention has been devoted to the learning processes that mediate between sustained ambiguity and strategic renewal. This article reconceptualizes volatility not as an automatic trigger of adaptation, but as a generator of learning pressure arising from recurring interpretive discrepancies. Integrating organizational learning theory with strategic renewal scholarship, the paper develops a process model in which adaptation unfolds through recursive cycles of strategic sensemaking, experience codification, deliberate unlearning, and adaptive renewal. The model further identifies learning velocity, memory rigidity, and feedback architecture as critical moderating conditions shaping renewal outcomes. By specifying the micro-processes through which volatility-induced ambiguity is translated into calibrated strategic realignment, the framework extends organizational learning theory into persistently turbulent contexts and provides a process-based articulation of adaptive renewal under sustained market uncertainty.*

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### Keywords

dynamic capabilities; learning pressure; organizational learning; persistent market volatility; strategic adaptation; strategic renewal

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# 1. Introduction

Persistent market volatility has become a structurally embedded characteristic of contemporary business environments rather than a temporary deviation from equilibrium conditions. Global capital mobility, accelerated information diffusion, geopolitical fragmentation, technological discontinuities, and monetary tightening cycles have collectively intensified uncertainty and compressed strategic reaction windows (Baker, Bloom, & Davis, 2016; Gennaioli, Shleifer, & Vishny, 2018). Unlike episodic crises, persistent volatility generates continuous ambiguity in valuation logic, performance expectations, and competitive positioning. Under such conditions, strategic stability cannot be presumed, and historical performance regularities lose predictive reliability (Wenzel, Stanske, & Lieberman, 2021).

Strategic management scholarship has responded to environmental turbulence primarily through capability-based and adaptation-oriented frameworks. Dynamic capability theory emphasizes the importance of sensing, seizing, and reconfiguring resources in response to shifting environments (Teece, 2007; Teece, Peteraf, & Leih, 2016). Similarly, research on organizational resilience highlights the role of strategic flexibility and resource redeployment in buffering external shocks (Duchek, 2020). These perspectives have significantly advanced understanding of how firms adjust under uncertainty. However, they often treat adaptation as a function of structural reconfiguration or capability orchestration, leaving underexplored the internal learning processes through which volatility is interpreted, codified, and transformed into strategic renewal.

Volatility does not directly produce adaptation; it produces interpretive ambiguity. Organizations confronted with similar environmental turbulence frequently diverge in response trajectories. Some translate volatility into disciplined renewal, recalibrating commitments and refining strategic posture. Others oscillate reactively or persist in rigid trajectories despite deteriorating signals. This heterogeneity suggests that adaptation cannot be explained solely by resource endowments or governance structures. Rather, it requires attention to the learning mechanisms that mediate between environmental ambiguity and strategic action.

Organizational learning theory provides a foundational lens for understanding this mediation. Early work distinguished between single-loop and double-loop learning, emphasizing how organizations revise routines versus reexamine underlying assumptions (Argyris & Schön, 1978). Subsequent research expanded this perspective by conceptualizing learning as a process of knowledge acquisition, interpretation, distribution, and institutionalization (Huber, 1991; Crossan, Lane, & White, 1999). More recent studies have highlighted the importance of sensemaking under ambiguity, demonstrating that how managers frame uncertain events shapes organizational trajectories (Kaplan & Orlikowski, 2013; Maitlis & Christianson, 2014). Yet despite these advances, limited integration exists between organizational learning theory and the specific context of persistent market volatility.

In financialized and narrative-driven markets, volatility often reflects shifts in expectations rather than purely operational fundamentals (Shiller, 2017). Such shifts challenge existing cognitive frames and evaluative criteria. When volatility is interpreted as cyclical noise, organizations may respond through incremental adjustment. When reframed as structural signal, it may trigger deeper reassessment of assumptions and commitments. This distinction reshapes how organizations interpret and respond to volatility. Research in behavioral strategy indicates that interpretation of ambiguous signals significantly influences strategic persistence or change (Gavetti, 2012; Powell, Lovallo, & Fox, 2011). Thus, the central theoretical problem is not whether organizations possess adaptive capacity, but how they learn from volatility in ways that enable strategic renewal rather than reactive oscillation.

While prior research has examined crisis learning and post-shock adjustment (Bundy, Pfarrer, Short, & Coombs, 2017), persistent volatility presents a different challenge. Unlike discrete crises, sustained ambiguity does not provide clear episodic boundaries for reflection

and recovery. Instead, organizations must develop ongoing learning cycles capable of processing continuous environmental variation. This requires mechanisms for structured sensemaking, experience codification, strategic unlearning, and renewal pacing. Absent such mechanisms, volatility may generate escalation of commitment, threat rigidity, or superficial corrective moves (Staw, Sandelands, & Dutton, 1981).

The present study addresses this gap by developing a conceptual model of organizational learning cycles under persistent market volatility. Rather than focusing on diversification capability, dominance correction, or governance architecture, the analysis centers on the internal processes through which organizations convert ambiguous volatility signals into disciplined strategic renewal. The core argument advanced here is that sustained adaptation under volatility depends on the integrity of learning cycles linking strategic sensemaking, knowledge codification, deliberate unlearning, and renewal velocity.

This reconceptualization contributes to strategy and management scholarship in three ways. First, it extends organizational learning theory by embedding it explicitly within contexts of financial and market volatility, where ambiguity is continuous rather than episodic. Second, it complements dynamic capability research by specifying the learning processes that underlie sensing and reconfiguration, thereby unpacking micro-foundational mechanisms often treated abstractly (Teece et al., 2016). Third, it reframes resilience not merely as structural robustness or governance discipline, but as the outcome of disciplined learning cycles capable of recalibrating strategic posture over time.

In persistently volatile markets, sustained performance depends less on response speed than on the quality of organizational learning processes. Organizations that institutionalize structured learning under ambiguity are more likely to convert turbulence into renewal rather than instability. The following sections elaborate the conceptual foundations of this argument and develop a process model of organizational learning cycles that explains how volatility can become a catalyst for adaptive strategic renewal rather than a source of strategic fragmentation.

## **2. Conceptual Foundations**

Understanding how organizations adapt under persistent market volatility requires a theoretical foundation that integrates insights from environmental uncertainty, organizational learning, and strategic renewal literature. While prior research has examined volatility primarily through the lenses of capability deployment, governance stabilization, or structural reconfiguration, comparatively less attention has been devoted to the learning processes that mediate between environmental ambiguity and strategic renewal.

A more integrated theoretical grounding therefore becomes necessary. Persistent market volatility can be reconceptualized not merely as a risk condition, but as a learning trigger that activates interpretive and institutional processes. Revisiting core perspectives in organizational learning theory clarifies how experience is interpreted, codified, and embedded in organizational routines. Linking these learning mechanisms to strategic renewal further illuminates how disciplined learning cycles sustain adaptive realignment under continuous ambiguity.

### **2.1 Persistent Market Volatility as a Learning Trigger**

Persistent market volatility alters not only competitive dynamics but also the epistemic conditions under which organizations interpret strategic signals. Unlike discrete crises that create identifiable rupture points, sustained volatility generates ongoing ambiguity regarding valuation, performance expectations, and competitive positioning (Baker et al., 2016; Gennaioli et al., 2018). Under such conditions, organizations cannot easily distinguish structural transformation from cyclical fluctuation.

Early research on environmental dynamism conceptualized uncertainty as variability in environmental components influencing strategic choice (Dess & Beard, 1984). However, more recent scholarship emphasizes that uncertainty reshapes interpretive processes within organizations (Kaplan & Orlikowski, 2013). Volatility compresses time horizons, amplifies performance dispersion, and increases sensitivity to expectation shifts (Wenzel et al., 2021). These dynamics challenge existing mental models and destabilize evaluative criteria.

Crucially, volatility does not carry inherent meaning. The same fluctuation may be interpreted as transient correction, structural disruption, or speculative noise. Behavioral strategy research demonstrates that managerial framing significantly shapes response trajectories (Gavetti, 2012; Powell et al., 2011). Thus, volatility functions as a learning trigger only when it generates cognitive discrepancy—when realized outcomes diverge from prior expectations in ways that demand interpretive reassessment.

From a behavioral theory perspective, performance gaps stimulate search behavior (Cyert & March, 1963; Greve, 2003). Under persistent volatility, such gaps become recurrent rather than episodic. Repeated discrepancies create sustained learning pressure, compelling organizations to reassess assumptions and revise strategic commitments. However, search does not guarantee effective learning. Without structured mechanisms for interpretation and institutionalization, organizations may fall into escalation of commitment or threat rigidity (Staw et al., 1981).

Persistent volatility therefore generates a paradox. It increases the frequency of feedback discrepancies while simultaneously intensifying ambiguity. Organizations must not only detect variance but also interpret its meaning correctly. The critical issue is not exposure itself, but how experience is processed. This shifts analytical attention from structural adaptation to learning mechanisms.

## 2.2 Organizational Learning Theory

Organizational learning theory offers a processual explanation of how experience becomes institutionalized knowledge. Argyris and Schön (1978) distinguished between single-loop learning—adjustment within existing assumptions—and double-loop learning—revision of underlying norms and governing variables. Under persistent volatility, single-loop correction may address short-term deviations but fail to recalibrate foundational assumptions. Double-loop learning becomes essential when volatility signals structural shifts.

Huber (1991) conceptualized organizational learning as a sequence involving knowledge acquisition, information distribution, interpretation, and memory formation. Crossan, Lane, and White (1999) further elaborated the 4I framework—intuiting, interpreting, integrating, and institutionalizing—emphasizing the movement of learning from individual cognition to collective routines. These frameworks highlight that learning unfolds across levels and requires structured translation processes.

Sensemaking research deepens this perspective by demonstrating that interpretation under ambiguity is socially constructed (Maitlis & Christianson, 2014). Kaplan and Orlikowski (2013) show that temporal framing influences how actors connect past experience, present conditions, and future expectations. In volatile markets, where predictive reliability declines, sensemaking becomes continuous rather than episodic. Organizations must repeatedly reconstruct meaning rather than rely on stable evaluative anchors.

Absorptive capacity further clarifies how organizations process ambiguous information. Cohen and Levinthal (1990) define absorptive capacity as the ability to recognize, assimilate, and apply new knowledge. Zahra and George (2002) extend this framework by distinguishing potential and realized absorptive capacity. Under volatility, absorptive processes determine whether fluctuating signals are dismissed as noise or incorporated into strategic reflection.

Equally important is unlearning. Hedberg (1981) argues that organizations often struggle to discard obsolete knowledge. Tsang and Zahra (2008) emphasize that unlearning involves deliberate questioning of entrenched beliefs. Persistent volatility frequently challenges

dominant assumptions about growth, valuation, or sectoral momentum. Without intentional unlearning, outdated mental models may persist despite contradictory evidence.

Taken together, these perspectives suggest that learning under volatility involves four interdependent mechanisms: (1) sensemaking of ambiguous signals, (2) codification of experience into structured knowledge, (3) institutionalization through routines and memory, and (4) deliberate unlearning of obsolete assumptions. However, existing literature rarely integrates these mechanisms into a unified framework tailored to sustained market turbulence. Bridging this gap requires integrating learning processes with strategic renewal outcomes.

## 2.3 Strategic Renewal Literature

Strategic renewal refers to the process through which organizations realign strategic posture to maintain long-term viability (Agarwal & Helfat, 2009). Renewal extends beyond incremental adjustment; it entails recalibration of commitments, pacing, and positioning. In volatile environments, renewal becomes not a periodic event but an ongoing necessity.

Dynamic capability theory provides a macro-level account of renewal through sensing, seizing, and transforming (Teece, 2007; Teece et al., 2016). Yet dynamic capabilities are often conceptualized abstractly, leaving micro-level learning processes under-specified (Felin et al., 2012). Understanding how organizations interpret and institutionalize volatility-induced experience helps clarify how sensing and reconfiguration are enacted.

Resilience research similarly emphasizes adaptive capacity under disturbance (Duchek, 2020). However, resilience is frequently treated as an outcome rather than a process. Without specifying the learning mechanisms underlying renewal, resilience risks becoming a descriptive label rather than an explanatory construct.

Recent studies highlight the importance of renewal pacing. Bingham, Eisenhardt, and Furr (2007) demonstrate that experiential learning influences the speed and sequencing of strategic action. Renewal velocity—the rate at which learning translates into recalibrated strategy—may differentiate firms operating under similar volatility conditions. Too rapid adjustment may produce oscillation; too slow adjustment may entrench misalignment.

Despite these advances, existing research lacks an integrated model explaining how persistent volatility flows through structured learning cycles to produce strategic renewal. Dynamic capability theory explains the necessity of reconfiguration; organizational learning theory explains how knowledge evolves; resilience research explains why renewal matters. What remains underdeveloped is a processual architecture linking volatility, learning cycles, and renewal velocity within a unified conceptual framework.

Addressing this gap requires synthesizing environmental uncertainty, organizational learning, and renewal literatures into an integrated process model. By foregrounding learning as the mediating mechanism between ambiguity and renewal, the framework advances a more granular explanation of adaptive strategic realignment in turbulent markets.

## 3. Conceptualizing Organizational Learning Cycles

Persistent market volatility introduces sustained ambiguity into strategic environments, challenging established evaluative criteria and destabilizing predictive confidence. Organizational learning theory offers a framework for understanding how such ambiguity is interpreted, processed, and institutionalized within firms.

Adaptation, however, does not arise automatically from environmental turbulence. Rather than directly generating renewal, volatility primarily generates learning pressure that must be processed through structured mechanisms before strategic recalibration occurs. Whether organizations translate that pressure into disciplined strategic recalibration depends on the integrity of learning cycles that transform ambiguity into structured renewal.

### 3.1 The Misconception of Automatic Adaptation

Strategic management literature frequently implies a quasi-automatic relationship between environmental turbulence and organizational adaptation. Dynamic capability theory, for instance, emphasizes sensing and reconfiguration under shifting conditions (Teece, 2007; Teece et al., 2016). Similarly, research on crisis response suggests that environmental shocks activate strategic change (Wenzel et al., 2021). While these frameworks highlight the necessity of adjustment, they risk implying that volatility inherently triggers effective adaptation.

Empirical evidence suggests otherwise. Organizations exposed to comparable volatility frequently diverge in strategic trajectories. Some recalibrate commitments and refine positioning; others persist in rigid patterns or oscillate between reactive shifts. This heterogeneity indicates that volatility alone cannot explain adaptation. Instead, volatility creates discrepancy and ambiguity, which must be interpreted and processed before strategic realignment occurs.

Behavioral theory of the firm offers an important corrective. Performance gaps stimulate search, but search outcomes depend on aspiration levels, interpretive framing, and institutional constraints (Cyert & March, 1963; Greve, 2003). Under persistent volatility, performance feedback becomes more frequent and less interpretable. Search intensity may increase, yet without structured learning processes, it may produce defensive retrenchment or escalation of commitment (Staw et al., 1981). Volatility functions as a stimulus that activates search and interpretation processes rather than as a mechanism that inherently ensures effective adaptation.

### 3.2 From Environmental Ambiguity to Learning Pressure

Persistent volatility generates repeated feedback discrepancies between expectations and realized outcomes. These discrepancies create what can be conceptualized as learning pressure—a sustained demand for cognitive reassessment and strategic reinterpretation.

Learning pressure differs from risk exposure. Risk concerns potential loss; learning pressure concerns interpretive strain. Under volatility, organizations confront not only uncertain outcomes but unstable meaning structures. Valuation metrics fluctuate, growth narratives shift, and performance benchmarks become contested. This instability challenges dominant assumptions and forces organizations to reassess how they interpret environmental signals (Kaplan & Orlikowski, 2013; Maitlis & Christianson, 2014).

Learning pressure emerges through three mechanisms:

1. **Expectation Disruption** – Realized outcomes diverge from projected trajectories, destabilizing predictive confidence.
2. **Narrative Instability** – Market narratives that previously legitimized strategic commitments lose coherence (Shiller, 2017).
3. **Feedback Ambiguity** – Signals are noisy, making causal attribution difficult (Gavetti, 2012).

These mechanisms increase interpretive workload within organizations. However, interpretive workload does not automatically translate into revised assumptions. Without structured learning cycles, ambiguity may reinforce prior beliefs through confirmation bias or defensive framing (Powell et al., 2011).

Volatility therefore intensifies cognitive demands within organizations, making the processing of interpretive pressure central to adaptive outcomes.

### 3.3 The Mediating Role of Learning Cycles

Adaptation under volatility is mediated by learning cycles that transform ambiguity into structured renewal. Drawing from organizational learning theory, these cycles involve

iterative processes of sensemaking, codification, unlearning, and institutionalization (Argyris & Schön, 1978; Crossan et al., 1999; Huber, 1991).

When learning cycles are robust, volatility-induced discrepancies prompt double-loop reassessment of underlying assumptions rather than superficial adjustment. Sensemaking routines interpret ambiguous signals; codification mechanisms translate experience into shared knowledge; unlearning processes discard obsolete mental models; institutionalization embeds revised logic into organizational routines.

Conversely, when learning cycles are weak, volatility may generate reactive oscillation. Organizations may implement incremental adjustments without revising governing assumptions, or they may escalate commitments in response to perceived threat. In such cases, volatility amplifies instability rather than catalyzing renewal.

This mediating perspective clarifies why structural capability or governance design alone cannot explain adaptation outcomes. Even firms possessing resource flexibility or formal oversight structures may fail to recalibrate if learning mechanisms are insufficiently institutionalized. Learning cycles constitute the internal processing architecture through which environmental ambiguity is converted into strategic renewal.

### **3.4 Renewal as a Learning Outcome**

Strategic renewal should therefore be conceptualized not as an automatic consequence of turbulence, but as an outcome of disciplined learning cycles. Renewal occurs when volatility-induced learning pressure is successfully processed into revised strategic posture.

This perspective complements dynamic capability theory by unpacking the micro-processes underlying sensing and reconfiguration (Felin et al., 2012). It also extends resilience literature by specifying how adaptive capacity is cultivated through structured learning rather than assumed as a stable trait (Duchek, 2020).

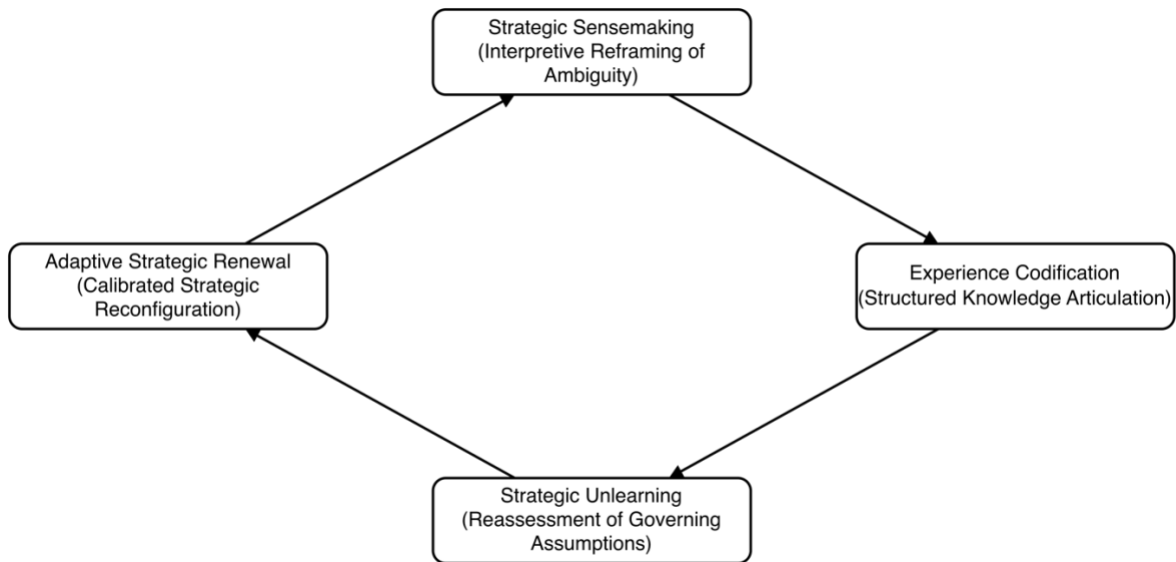
Critically, renewal is not binary. Organizations vary in renewal velocity—the speed and consistency with which learning translates into recalibrated strategic commitments. Excessively rapid adjustment may produce instability; delayed adjustment may entrench misalignment. Effective learning cycles regulate this pacing, converting ambiguity into disciplined recalibration rather than episodic reaction.

Persistent market volatility, in itself, is insufficient to ensure disciplined adaptation. It generates learning pressure by destabilizing expectations and intensifying interpretive ambiguity. Adaptation emerges only when organizations possess structured learning cycles capable of transforming volatility-induced discrepancies into strategic renewal. The next section develops this argument into a formal conceptual model detailing the stages and mechanisms of organizational learning cycles under persistent market volatility.

## **4. Organizational Learning Cycles**

Persistent market volatility generates learning pressure rather than automatic adaptation. Transforming volatility-induced ambiguity into adaptive strategic renewal requires structured learning cycles that operate iteratively over time. Adaptation is therefore best understood not as a discrete event, but as a temporally sequenced and recursively reinforced process involving strategic sensemaking, experience codification, strategic unlearning, and adaptive renewal.

This figure visualizes the internal recursive learning architecture that converts volatility-induced ambiguity into adaptive strategic renewal. It clarifies how strategic recalibration emerges from sequenced but interdependent learning stages rather than from automatic environmental reaction. The model emphasizes process integrity and cyclical reinforcement.



**Figure 1.** Recursive Organizational Learning Cycle Under Persistent Market Volatility  
*Source: Developed by the author*

Figure 1 illustrates the recursive learning architecture through which organizations process volatility-induced ambiguity. The cycle begins with strategic sensemaking, where interpretive discrepancies are reframed, followed by experience codification that structures insights into shared knowledge. Strategic unlearning recalibrates governing assumptions, enabling adaptive strategic renewal. Renewal outcomes generate new expectations, reactivating the cycle. By modeling adaptation as a disciplined recursive process, Figure 1 clarifies the internal mechanism that transforms learning pressure into sustained strategic recalibration.

At its core, volatility produces interpretive discrepancy. Organizations respond through iterative learning processes that either stabilize or destabilize strategic posture, depending on the integrity and pacing of those cycles.

#### 4.1 Strategic Sensemaking Under Persistent Volatility

The learning cycle begins with strategic sensemaking. Persistent volatility disrupts predictive confidence, producing discrepancies between expected and realized outcomes. These discrepancies do not carry inherent meaning; they require interpretation. Sensemaking refers to the process through which organizational actors construct plausible explanations for ambiguous events (Maitlis & Christianson, 2014).

Under persistent volatility, sensemaking is not episodic but continuous. Managers must repeatedly assess whether performance deviations reflect temporary fluctuation, competitive repositioning, or structural transformation. Temporal framing becomes central in this process. Organizations that situate volatility within longer evaluative horizons are more likely to reinterpret discrepancies as signals requiring reassessment rather than as isolated anomalies (Kaplan & Orlikowski, 2013).

Strategic sensemaking involves three micro-processes. First, anomaly recognition: identifying deviations that challenge prior expectations. Second, narrative reconstruction: rearticulating causal explanations for observed outcomes. Third, framing realignment: adjusting interpretive schemas that guide strategic evaluation.

When sensemaking remains superficial—framing volatility as noise—learning pressure dissipates without deeper reassessment. When sensemaking becomes reflexive and critical, it initiates double-loop inquiry into governing assumptions (Argyris & Schön, 1978). Thus, the quality of sensemaking determines whether volatility triggers incremental correction or foundational reconsideration.

#### 4.2 Experience Codification and Knowledge Structuring

Sensemaking alone does not constitute learning. For learning to influence strategic posture, interpreted experience must be codified into shared and retrievable knowledge structures. Codification refers to the process through which insights derived from volatility are translated into organizational artifacts—reports, strategic reviews, scenario analyses, and revised evaluation criteria (Huber, 1991).

Persistent volatility increases the frequency of performance deviations, generating abundant experiential data. However, without structured codification, experience remains fragmented and localized. Crossan et al. (1999) emphasize that learning must move from individual cognition to collective institutionalization. Codification mechanisms enable this transition by embedding revised interpretations into shared routines and decision frameworks.

Codification performs two stabilizing functions. First, it reduces interpretive variance across organizational units, aligning understanding of volatility. Second, it preserves experiential memory, allowing organizations to compare current ambiguity with prior turbulence episodes. Through repeated cycles of codification, volatility-induced experiences accumulate into structured knowledge repositories.

The absence of codification produces reactive adaptation. Organizations may respond to volatility in the moment but fail to integrate lessons into enduring evaluative criteria. Consequently, similar ambiguity in future periods triggers repeated improvisation rather than cumulative learning.

### **4.3 Strategic Unlearning and Cognitive Recalibration**

A distinctive feature of learning under persistent volatility is the necessity of unlearning. Volatility frequently destabilizes assumptions that were previously validated under stable growth conditions. Yet entrenched mental models and routines exhibit inertia (Hedberg, 1981). Without deliberate unlearning, outdated evaluative frameworks may persist despite contradictory evidence.

Strategic unlearning involves systematic questioning and abandonment of obsolete assumptions. It requires challenging dominant narratives, revisiting performance benchmarks, and reexamining exposure logic. Tsang and Zahra (2008) argue that unlearning is not the erasure of knowledge but the deliberate suspension of its governing authority.

Under persistent volatility, unlearning becomes a recurring requirement rather than an exceptional event. Growth narratives, sectoral optimism, or valuation heuristics that shaped prior commitments may lose explanatory power. Organizations that fail to recalibrate governing assumptions risk misinterpreting volatility signals, either by dismissing structural change as cyclical or by overcorrecting based on transient fluctuations.

Unlearning is cognitively and politically demanding. It disrupts established routines and may challenge prior strategic commitments. However, it is essential for preventing learning cycles from degenerating into mere reinforcement of existing logic. Effective learning cycles institutionalize structured reflection processes that periodically revalidate underlying assumptions.

### **4.4 Adaptive Strategic Renewal and Renewal Velocity**

The culmination of the learning cycle is adaptive strategic renewal. Renewal refers to recalibrated strategic posture emerging from revised interpretations, codified knowledge, and updated governing assumptions (Agarwal & Helfat, 2009). Unlike episodic transformation, renewal under persistent volatility is iterative and paced.

Adaptive renewal does not necessarily entail radical reconfiguration. It may involve recalibration of investment pacing, refinement of growth priorities, or adjustment of performance thresholds. The defining feature is alignment between updated interpretive frameworks and strategic commitments.

A critical dimension of renewal is velocity—the speed and consistency with which learning translates into strategic recalibration. Bingham et al. (2007) suggest that experiential learning influences the timing of strategic moves. Under persistent volatility, excessive renewal velocity may generate oscillation, while insufficient velocity may entrench misalignment.

Learning cycles regulate this pacing. When sensemaking, codification, and unlearning operate coherently, renewal becomes disciplined rather than reactive. The organization avoids abrupt reversals while remaining responsive to structural signals.

#### **4.5 Recursive Learning and Strategic Stabilization**

The model conceptualizes learning cycles as recursive rather than linear. Renewal outcomes generate new expectations, which are subsequently tested against evolving market conditions. Persistent volatility ensures that discrepancy reemerges, reactivating sensemaking processes.

Through repeated cycles, organizations may develop higher-order learning capabilities. Codified experiences enhance absorptive capacity, improving the organization's ability to interpret ambiguous signals (Cohen & Levinthal, 1990). Institutionalized reflection routines increase interpretive discipline. Over time, learning cycles may stabilize strategic posture by reducing variance in response quality.

Importantly, stabilization does not imply rigidity. Rather, it reflects the organization's ability to process ambiguity without excessive oscillation. Stability emerges not from environmental predictability but from disciplined learning architecture.

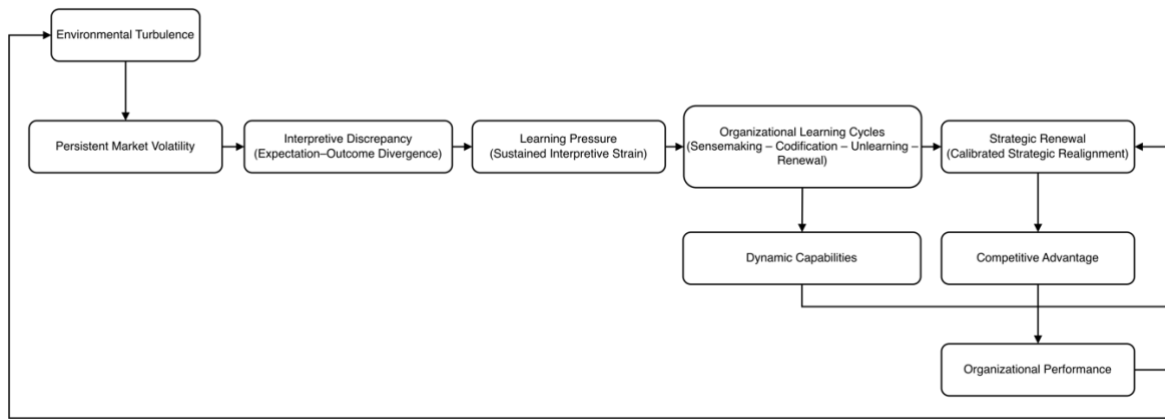
#### **4.6 Boundary Conditions and Process Integrity**

The effectiveness of organizational learning cycles depends on process integrity. Fragmented sensemaking, superficial codification, or incomplete unlearning may disrupt renewal coherence. Additionally, structural rigidity or excessive temporal compression may constrain the translation of learning into action.

The model therefore assumes that learning cycles operate within temporal and structural constraints. Organizations facing extreme liquidity pressure or governance paralysis may struggle to institutionalize learning despite interpretive clarity. Conversely, organizations with structured reflection routines and adaptive pacing mechanisms are better positioned to sustain renewal under ambiguity.

In summary, the proposed model conceptualizes adaptation under persistent market volatility as the outcome of recursive learning cycles linking sensemaking, codification, unlearning, and adaptive renewal. Volatility generates learning pressure; structured learning processes convert that pressure into disciplined strategic recalibration. Absent such cycles, volatility may produce instability rather than renewal.

This figure presents the integrated macro-architecture linking persistent market volatility to strategic renewal through the mediating mechanism of organizational learning cycles. It synthesizes the full theoretical model by clarifying how environmental ambiguity is transformed into calibrated adaptation via structured learning pressure.



**Figure 2.** Integrated Conceptual Model: From Persistent Market Volatility to Strategic Renewal  
*Source: Developed by the author*

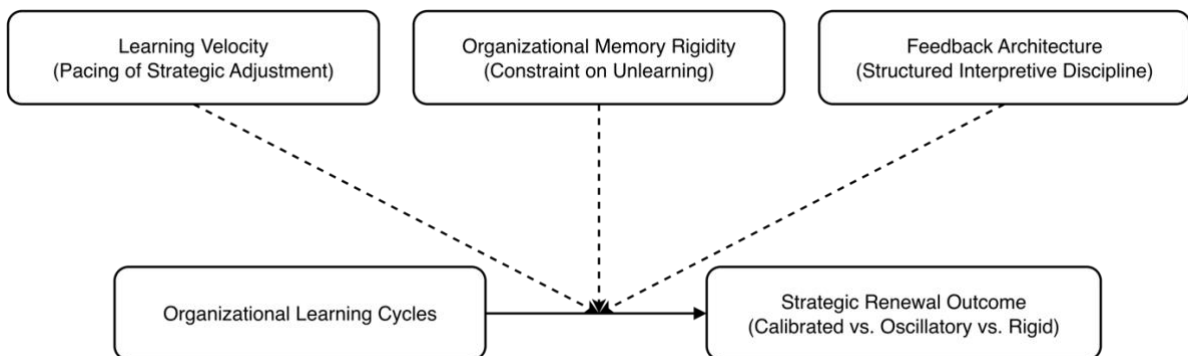
Figure 2 synthesizes the article’s full theoretical architecture by tracing the sequential transformation from persistent market volatility to strategic renewal. Volatility generates interpretive discrepancy, which creates sustained learning pressure. This pressure is mediated by organizational learning cycles that structure sensemaking, codification, unlearning, and renewal processes. Strategic renewal emerges only when this mediating architecture operates with integrity. By integrating environmental conditions, mediating mechanisms, and outcome, Figure 2 clarifies the article’s central proposition that adaptation is learning-mediated rather than volatility-driven.

## 5. Moderating Conditions of Learning Cycles

Adaptation under persistent market volatility emerges from recursive learning cycles linking sensemaking, codification, unlearning, and renewal. Yet organizations differ markedly in their ability to convert learning pressure into disciplined strategic recalibration. The effectiveness of learning cycles depends on conditions that shape their pacing, depth, and stability.

Three interrelated moderators are particularly consequential: learning velocity, organizational memory rigidity, and feedback architecture. These conditions influence whether volatility-induced learning pressure culminates in calibrated renewal, reactive oscillation, or strategic inertia.

This figure presents the integrated macro-architecture linking persistent market volatility to strategic renewal through the mediating mechanism of organizational learning cycles. It synthesizes the full theoretical model by clarifying how environmental ambiguity is transformed into calibrated adaptation via structured learning pressure.



**Figure 3.** Moderating Conditions of Organizational Learning Cycle Integrity  
*Source: Developed by the author*

Figure 3 illustrates how the translation of organizational learning cycles into strategic renewal outcomes is conditioned by three moderating structures: learning velocity, organizational memory rigidity, and feedback architecture. Learning velocity shapes the pacing of strategic recalibration, memory rigidity constrains or enables effective unlearning, and feedback architecture structures interpretive discipline. Together, these moderators determine whether learning cycles culminate in calibrated renewal, oscillatory over-adjustment, or rigid persistence. By specifying these conditional pathways, Figure 3 clarifies why organizations facing similar volatility environments display divergent renewal trajectories.

### **5.1 Learning Velocity: The Pacing of Strategic Renewal**

Learning velocity refers to the speed and consistency with which interpreted experience is translated into strategic recalibration. It captures not merely reaction speed, but the temporal alignment between interpretation, institutionalization, and action.

Experiential learning research suggests that organizations vary in how rapidly they adjust decision rules in response to feedback (Bingham et al., 2007). Under persistent volatility, pacing becomes particularly consequential. Excessively slow learning velocity may allow misalignment to accumulate, reinforcing outdated commitments. Conversely, excessively rapid learning velocity may produce oscillatory adaptation—frequent strategic shifts that undermine coherence and stakeholder confidence.

Learning velocity therefore operates as a balancing mechanism. Effective organizations calibrate the tempo of renewal to the signal quality of volatility. When volatility reflects structural transformation, accelerated recalibration may be appropriate. When volatility reflects short-term fluctuation, moderated pacing prevents overcorrection.

Importantly, learning velocity differs from agility as commonly defined in strategic management. Agility emphasizes responsiveness; learning velocity emphasizes disciplined translation of knowledge into action. It is not speed per se that matters, but the synchronization of interpretive clarity and strategic adjustment.

Thus, learning velocity moderates the relationship between learning cycles and renewal outcomes. When velocity is calibrated, learning cycles generate coherent renewal. When velocity is misaligned—either too fast or too slow—renewal may degenerate into instability or rigidity.

### **5.2 Organizational Memory Rigidity: Constraints on Unlearning**

A second moderating condition concerns the rigidity of organizational memory. Organizational memory comprises stored knowledge embedded in routines, narratives, performance metrics, and evaluative schemas (Huber, 1991). While memory enables cumulative learning, it may also constrain interpretive flexibility.

Under persistent volatility, previously successful mental models may lose explanatory power. However, entrenched memory structures can inhibit unlearning (Hedberg, 1981). Tsang and Zahra (2008) argue that unlearning requires deliberate suspension of established assumptions, a process that becomes increasingly difficult as routines solidify.

Memory rigidity moderates the depth of learning cycles. When memory structures are highly rigid, sensemaking processes may be filtered through outdated frames, limiting the likelihood of double-loop reassessment (Argyris & Schön, 1978). Codification may reinforce prior logic rather than revise it. Renewal becomes incremental rather than transformative.

Conversely, when organizational memory retains elasticity—through reflective routines, scenario planning, or rotating evaluative criteria—unlearning becomes more feasible. Learning cycles are then more likely to generate genuine recalibration rather than superficial adjustment.

Memory rigidity does not imply incompetence; it reflects the strength of institutionalized knowledge. The challenge under volatility is not to erase memory but to prevent it from

becoming doctrinal. Organizations that institutionalize periodic reassessment of governing assumptions are better positioned to convert learning pressure into meaningful renewal.

### **5.3 Feedback Architecture: Structuring Interpretive Discipline**

A third moderating condition is feedback architecture—the structured mechanisms through which performance information is collected, interpreted, and deliberated. While volatility increases the volume of feedback signals, their interpretive value depends on how they are processed.

Behavioral theory emphasizes that performance feedback shapes search behavior (Greve, 2003). However, feedback interpretation is socially constructed and subject to bias (Gavetti, 2012). Without structured deliberation mechanisms, organizations may selectively attend to confirming signals while dismissing disconfirming evidence.

Feedback architecture refers to the institutionalized routines that govern how volatility signals are reviewed and debated. These may include scheduled strategic reviews, scenario-based evaluation sessions, cross-functional reflection forums, or structured post-decision assessments. Such mechanisms create interpretive discipline, reducing the likelihood of ad hoc reaction.

Feedback architecture strengthens learning cycles in two ways. First, it stabilizes sensemaking by embedding volatility interpretation within structured dialogue rather than informal conjecture. Second, it enhances codification by formalizing lessons into documented evaluative criteria.

When feedback architecture is weak or irregular, volatility may trigger fragmented interpretation across units. Learning becomes localized and inconsistent, undermining coherent renewal. In contrast, robust feedback architecture increases the probability that learning cycles operate integratively and cumulatively.

### **5.4 Interdependence of Moderating Conditions**

Learning velocity, memory rigidity, and feedback architecture interact in shaping renewal outcomes. High learning velocity combined with weak feedback architecture may produce impulsive recalibration. Strong feedback architecture combined with rigid memory may institutionalize outdated logic. Flexible memory without disciplined pacing may generate experimental drift.

Effective adaptation under persistent volatility therefore depends not only on the presence of learning cycles but on the alignment of these moderating conditions. Learning cycles generate renewal when pacing is calibrated, memory is reflexive rather than rigid, and feedback interpretation is structured rather than fragmented.

These moderators clarify why organizations facing similar volatility environments display divergent renewal trajectories. Volatility creates learning pressure, but the translation of that pressure into disciplined strategic recalibration depends on the structural and temporal integrity of learning processes.

In sum, adaptation under persistent market volatility is neither automatic nor solely capability-driven. It is conditioned by the velocity of learning translation, the rigidity of institutionalized memory, and the discipline of feedback architecture. Together, these moderating conditions determine whether learning cycles stabilize strategic posture or amplify instability.

## **6. Theoretical and Managerial Implications**

The conceptual model developed in this study reframes persistent market volatility as a learning-intensive condition and positions adaptive strategic renewal as the outcome of disciplined learning cycles. By integrating insights from environmental uncertainty,

organizational learning, and renewal literature, the framework advances a process-based explanation of how organizations convert ambiguity into recalibrated strategic posture.

This reframing carries important implications for both theory and practice. It clarifies how the model contributes to ongoing debates in organizational learning, dynamic capability, and strategic renewal research, while also highlighting its practical relevance for organizations navigating persistently volatile environments. The discussion further identifies avenues for future research that can empirically examine the conditions and consequences of learning-based renewal.

## 6.1 Theoretical Implications

This framework contributes to three ongoing debates within strategy and organization research. First, it extends organizational learning theory into contexts of persistent market volatility, where ambiguity is continuous rather than episodic. While prior research conceptualizes learning as a process of interpretation and institutionalization (Crossan et al., 1999; Huber, 1991), it has rarely specified how sustained financial turbulence reshapes the structure and pacing of learning itself. By introducing the notion of learning pressure and modeling recursive learning cycles under persistent volatility, the framework reconceptualizes adaptation as an ongoing interpretive process rather than a discrete corrective event.

Second, the model advances dynamic capability scholarship by unpacking the micro-processes through which sensing and reconfiguration unfold under sustained ambiguity (Teece et al., 2016). Rather than treating reconfiguration as an abstract orchestration capability, the framework specifies how sensemaking, codification, and deliberate unlearning jointly mediate between volatility and renewal. In doing so, it complements recent calls for more granular process explanations of adaptive strategy under uncertainty (Kraatz & Block, 2022; Eggers & Park, 2023).

Third, the framework reconceptualizes strategic renewal as a velocity-conditioned learning outcome. Renewal is neither automatic nor uniformly beneficial; it depends on the temporal alignment between interpretive reassessment and calibrated strategic action. By integrating learning velocity and memory rigidity into the explanation of renewal heterogeneity, the model clarifies why organizations facing similar volatility conditions display divergent strategic trajectories.

### Extending Organizational Learning to Persistent Market Volatility

Organizational learning research has long emphasized processes of interpretation, integration, and institutionalization (Huber, 1991; Crossan et al., 1999). However, much of this literature assumes relatively bounded episodes of change or innovation. By contrast, persistent market volatility generates continuous ambiguity rather than discrete interruption.

This study introduces the concept of learning pressure to capture how sustained discrepancy between expectations and realized outcomes generates recurring interpretive strain. Unlike episodic crises, persistent volatility does not provide recovery intervals. Instead, it requires ongoing recalibration of assumptions and evaluative criteria.

This table sharpens the article’s theoretical positioning by distinguishing learning under episodic crisis from learning under persistent market volatility. It clarifies boundary conditions and highlights the conceptual novelty of the learning pressure framework.

**Table 1.** Episodic Crisis Learning versus Persistent Volatility Learning

Dimension	Episodic Crisis Learning	Persistent Volatility Learning
Temporal Structure	Discrete, bounded shock events followed by recovery periods	Continuous and structurally embedded ambiguity without clear recovery intervals

Trigger Mechanism	Acute disruption or performance collapse	Recurrent expectation–outcome discrepancies
Nature of Uncertainty	High-intensity but temporally concentrated	Sustained, fluctuating, and interpretively ambiguous
Learning Activation	Reactive and event-driven	Ongoing and recursively activated
Interpretive Challenge	Diagnosis of shock causes and response coordination	Continuous reassessment of evaluative criteria and causal narratives
Role of Sensemaking	Episodic framing of crisis events	Continuous reconstruction of meaning under ambiguity
Unlearning Requirement	Occasional revision of assumptions after disruption	Recurrent and structured recalibration of governing assumptions
Renewal Pattern	Discontinuous transformation or recovery-oriented adjustment	Iterative and velocity-conditioned strategic recalibration
Risk of Maladaptation	Delayed response to shock	Oscillatory over-adjustment or rigid persistence under ambiguity
Core Theoretical Focus	Crisis management and resilience	Learning pressure and recursive learning cycle integrity

Source: Developed by the author

Table 1 reinforces the article’s theoretical contribution by demonstrating that persistent volatility requires a fundamentally different learning architecture than episodic crisis contexts. By contrasting temporal structure, interpretive demands, and renewal dynamics, Table 1 clarifies why recursive learning cycles and learning pressure are central explanatory constructs in this framework rather than extensions of crisis-response theory.

By situating double-loop learning (Argyris & Schön, 1978) within contexts of sustained financial turbulence, the model clarifies that organizational learning under volatility involves repeated cognitive restructuring rather than isolated correction. Learning becomes recursive, temporally structured, and pacing-dependent. This extension deepens understanding of how interpretive discipline is maintained when environmental signals remain unstable over time.

### Unpacking the Micro-Foundations of Dynamic Capability

The framework also contributes to dynamic capability scholarship by providing a micro-process explanation of how sensing and transformation unfold under ambiguity. While dynamic capability theory emphasizes reconfiguration under environmental change (Teece, 2007; Teece et al., 2016), critics have noted that its internal mechanisms are often under-specified (Felin et al., 2012).

The learning cycle model articulates how volatility-induced ambiguity is processed through sequential stages of sensemaking, codification, unlearning, and renewal. In doing so, it clarifies that sensing is not automatic detection, but interpretive construction; that transformation depends on institutionalized knowledge translation; and that reconfiguration is paced through calibrated renewal velocity.

This reframing suggests that dynamic capabilities are contingent upon learning architecture integrity. Resource flexibility alone does not guarantee adaptation; disciplined learning cycles mediate between ambiguity and reconfiguration.

### Reconceptualizing Strategic Renewal as a Learning Outcome

Finally, the study reconceptualizes strategic renewal as the cumulative outcome of recursive learning cycles rather than episodic restructuring. Strategic renewal literature often emphasizes scope realignment or competitive repositioning (Agarwal & Helfat, 2009). However, structural shifts are enabled by underlying interpretive recalibration.

By introducing renewal velocity as a central construct, the model highlights temporal pacing as a critical dimension of renewal effectiveness. Organizations differ not only in whether they

renew, but in how consistently and coherently they translate learning into strategic adjustment.

This contribution complements resilience research (Duchek, 2020) by specifying that stability under volatility is not the absence of change, but the presence of disciplined learning processes that prevent oscillatory adaptation. Renewal thus emerges as a learning-conditioned phenomenon rather than a purely structural one.

While these theoretical implications clarify the model's contributions to academic discourse, the framework also carries important practical relevance. Persistent volatility is increasingly a structural feature of contemporary markets. Organizations therefore require not only strategic flexibility but also disciplined learning architecture capable of sustaining coherent renewal.

## **6.2 Managerial Implications**

The proposed framework offers several implications for managerial practice, particularly for executives navigating sustained financial and market turbulence.

### **Institutionalizing Structured Sensemaking**

Managers should recognize that volatility demands structured interpretive routines rather than ad hoc reaction. Regularly scheduled strategic review forums, cross-functional anomaly discussions, and scenario-based reflection sessions can enhance interpretive depth. Without institutionalized sensemaking, organizations risk misclassifying structural signals as temporary noise or overreacting to short-term fluctuations.

Structured sensemaking reduces interpretive fragmentation and increases the likelihood of double-loop inquiry into governing assumptions.

### **Designing Effective Codification Mechanisms**

Experience derived from volatile periods must be systematically captured and integrated into organizational memory. Post-volatility evaluations, revised performance benchmarks, and documented decision rationales help convert episodic reaction into cumulative knowledge.

Codification should not devolve into bureaucratic formalism. Instead, it should function as a knowledge-structuring mechanism that enables future comparison and pattern recognition. Organizations that institutionalize disciplined codification reduce reliance on improvisation during subsequent volatility cycles.

### **Managing Deliberate Unlearning**

Persistent volatility frequently challenges assumptions formed during expansionary periods. Leaders should implement structured assumption-challenging mechanisms—such as reverse stress testing, pre-mortem analysis, or rotating evaluation panels—to facilitate deliberate unlearning.

Unlearning is cognitively demanding and politically sensitive, but it is essential for preventing outdated narratives from distorting interpretation of new signals.

### **Calibrating Renewal Velocity**

Managers must also attend to renewal pacing. Excessively rapid recalibration may create strategic instability and stakeholder confusion. Conversely, delayed adjustment may entrench misalignment.

By establishing periodic renewal cadence—through formalized strategic review cycles—organizations can align learning velocity with the strength and persistence of volatility signals. Effective renewal is not defined by speed alone, but by disciplined synchronization between interpretive clarity and strategic action.

Beyond immediate managerial implications, the framework opens important questions for empirical investigation. Understanding how learning cycles operate across different

organizational contexts can deepen knowledge of adaptation heterogeneity under persistent turbulence.

### 6.3 Implications for Future Research

The proposed model provides a conceptual foundation for future empirical and comparative studies. Several research directions are particularly promising. This table clarifies the core theoretical constructs underpinning the conceptual model and provides definitional precision for future empirical operationalization. By consolidating construct definitions in one location, it enhances analytical clarity and reduces conceptual ambiguity.

**Table 2.** Core Constructs and Conceptual Definitions

<b>Construct</b>	<b>Conceptual Definition</b>	<b>Analytical Role in the Model</b>
Persistent Market Volatility	A structurally embedded condition of continuous market fluctuation that destabilizes valuation logic, performance expectations, and competitive positioning.	Exogenous environmental condition generating sustained ambiguity.
Interpretive Discrepancy	Recurrent divergence between expected and realized outcomes under volatile conditions.	Immediate cognitive trigger activating learning processes.
Learning Pressure	Sustained interpretive strain arising from repeated expectation–outcome misalignment.	Motivational mechanism that initiates recursive learning cycles.
Strategic Sensemaking	Structured interpretive processes through which organizational actors reframe ambiguous signals and reassess causal explanations.	First stage of the learning cycle; initiates interpretive recalibration.
Experience Codification	Translation of interpreted experience into structured, shared, and retrievable organizational knowledge.	Institutionalizes insights and reduces interpretive fragmentation.
Strategic Unlearning	Deliberate reassessment and suspension of obsolete governing assumptions and evaluative criteria.	Enables double-loop adjustment and prevents reinforcement of outdated logic.
Adaptive Strategic Renewal	Calibrated realignment of strategic commitments and positioning based on revised interpretive frameworks.	Outcome of disciplined learning cycles.
Learning Velocity	The pace and temporal alignment with which interpreted knowledge is translated into strategic recalibration.	Moderates coherence and stability of renewal outcomes.
Organizational Memory Rigidity	Degree to which institutionalized routines and evaluative schemas constrain interpretive flexibility.	Moderates depth of unlearning and recalibration.
Feedback Architecture	Structured mechanisms governing how performance information is reviewed, debated, and institutionalized.	Moderates interpretive discipline and cumulative learning integrity.

*Source: Developed by the author*

Table 2 consolidates the conceptual vocabulary of the model and specifies the analytical function of each construct within the broader theoretical architecture. By clearly distinguishing environmental conditions, mediating mechanisms, and moderating variables, Table 2 supports interpretive precision and facilitates future empirical testing of the proposed framework.

First, longitudinal studies could examine how learning velocity moderates the relationship between volatility intensity and performance variance across firms. Second, qualitative process research may explore how structured sensemaking routines influence double-loop learning under ambiguous market signals. Third, cross-industry comparisons could

investigate how memory rigidity varies across mature versus emerging sectors in shaping renewal trajectories.

Additionally, future research may explore the interaction between learning architecture and governance systems without conflating the two. While this study isolates learning processes analytically, empirical work may examine how governance arrangements facilitate or constrain learning cycle integrity under sustained volatility.

Finally, quantitative operationalization of constructs such as renewal velocity, codification depth, and unlearning intensity could enable more systematic testing of the model's propositions.

In sum, this study reframes persistent market volatility as a learning-intensive environment and conceptualizes adaptive strategic renewal as the outcome of recursive, disciplined learning cycles. By integrating organizational learning, dynamic capability, and renewal perspectives, the framework offers a micro-process explanation for why organizations facing similar volatility may display divergent strategic trajectories.

The concluding section synthesizes the argument and reiterates the central proposition: volatility does not automatically produce adaptation—it produces learning pressure, and adaptation emerges only when organizations institutionalize coherent learning cycles capable of converting ambiguity into calibrated renewal.

## **7. Managerial and Board-Level Implications**

Persistent market volatility has become a defining structural condition of contemporary business environments. Rather than representing episodic disturbance, volatility now constitutes a recurring source of ambiguity that destabilizes predictive confidence, challenges evaluative criteria, and intensifies interpretive workload within organizations. Under such conditions, adaptation cannot be assumed to follow automatically from environmental turbulence.

This study advances a central proposition: volatility does not directly produce adaptation; it produces learning pressure. Whether that pressure translates into disciplined strategic renewal depends on the integrity of organizational learning cycles that mediate between ambiguity and recalibrated strategic posture.

By synthesizing organizational learning, dynamic capability, and strategic renewal literature, the article develops a process model in which adaptation unfolds through recursive cycles of strategic sensemaking, experience codification, deliberate unlearning, and adaptive renewal. This model shifts the analytical focus from structural reconfiguration to interpretive processing. It clarifies that strategic renewal under persistent volatility is neither reactive adjustment nor episodic transformation, but the cumulative outcome of disciplined learning architecture.

The framework contributes to theory by extending organizational learning into contexts of sustained financial turbulence, unpacking the micro-foundations of dynamic capability enactment, and reconceptualizing renewal as a velocity-conditioned learning outcome. It also contributes to practice by emphasizing the importance of structured sensemaking routines, codification mechanisms, deliberate unlearning processes, and calibrated renewal pacing.

Strategic stability under volatility stems less from environmental predictability or resource flexibility than from disciplined learning architecture. Stability emerges from recursive learning cycles that convert ambiguity into coherent recalibration. Organizations that institutionalize disciplined learning processes are better positioned to avoid oscillatory overreaction and rigid persistence. Those that fail to do so may experience volatility not as a catalyst for renewal, but as a source of strategic fragmentation.

In increasingly turbulent markets, the central managerial challenge is not simply to respond quickly, but to learn systematically. Adaptation is not guaranteed by exposure to change; it is achieved through the structured conversion of learning pressure into calibrated strategic renewal.

Future empirical research can build on this conceptual foundation to examine how variations in learning cycle integrity explain heterogeneity in organizational performance under persistent volatility. By foregrounding learning as the mediating architecture of adaptation, this study offers a refined understanding of how organizations sustain strategic coherence when ambiguity becomes the norm rather than the exception.

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