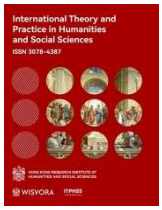
WISVORA

International Theory and Practice in Humanities and Social Sciences
2026 Volume3,Issue1 ISSN 3078-4387



From VRIN to Velocity: Integrating Resource-Based View and Dynamic Capabilities for Competitive Advantage in AI-Accelerated Markets

Kecun Chen[1]*

[1]*Seokyeong University, Seoul 02713, Republic of Korea*

Accepted

2026-02-04

Keywords

Resource-based view; Dynamic capabilities; Sustained competitive advantage; Turbulent markets; Strategic renewal

Corresponding Author

Kecun Chen

http://doi.org/10.70693/itphss.v3i1.282

Abstract

In dynamic and turbulent markets, sustaining competitive advantage increasingly depends not only on possessing strategically valuable resources but also on renewing and redeploying those resources as competitive conditions evolve. This paper develops an integrated framework that links the resource-based view (RBV) and dynamic capabilities (DCs) through a stock–flow logic. Specifically, VRIN-type resource stocks provide the foundation for differentiation, while renewal flows—organized around sensing, seizing, and transforming—enable firms to continuously refresh, recombine, and reconfigure resource bundles to preserve their strategic relevance over time. The framework addresses two recurring limitations in prior research: the tendency of resource-based explanations to under-specify how resource value is maintained under turbulence, and the risk of conceptual slippage in capability-based explanations when renewal is treated as a broad, outcome-implied label rather than a mechanism acting on concrete assets. Building on this integration, the paper advances a set of propositions that clarify complementarities between resource stock quality and renewal-flow capacity, highlight resource–capability alignment as a distinct driver of renewable advantage, and specify boundary conditions under which transforming becomes a bottleneck. Finally, the paper outlines a research operationalization roadmap to support cumulative empirical testing and derives managerial implications that emphasize institutionalized renewal systems over episodic transformation initiatives.

1. Introduction

Dynamic and turbulent markets have become the dominant context for competition across industries. Technological discontinuities, shortening product life cycles, shifting customer expectations, and recurring regulatory or geopolitical shocks continually reshape competitive landscapes. Under such conditions, the strategic challenge is not only whether a firm can *build* competitive advantage, but whether it can *renew* that advantage fast enough to remain ahead. This shifts attention from explaining the *origins* of superior performance to explaining the *continuity* of superior performance under persistent change.

The Resource-Based View (RBV) has long provided a powerful explanation for performance differences by arguing that firms achieve sustained competitive advantage when they possess resources that are valuable, rare, inimitable, and non-substitutable (VRIN) (Barney, 1991). Building on early resource-oriented arguments that firms can be analyzed from the "resource side" rather than only through product-market positions (Wernerfelt, 1984), RBV clarifies why unique asset endowments—such as proprietary knowledge, reputational capital, specialized routines, or privileged stakeholder relationships—can underpin persistent rents (Peteraf, 1993). However, a widely acknowledged limitation is RBV's relatively static orientation: it tends to emphasize *possession* and *protection* of strategic resources, while being less explicit about how resource advantage is continuously updated when environments are volatile (Priem & Butler, 2001). In dynamic markets, resources that were once valuable can depreciate quickly, imitation barriers can erode as practices diffuse, and "rare" capabilities may become more replicable through platforms, modular technologies, or the mobility of talent.

Dynamic Capabilities (DCs) scholarship directly addresses this gap by emphasizing the firm's capacity to purposefully adapt and renew its resource base in response to environmental change (Teece, Pisano, & Shuen, 1997). Rather than treating advantage as a primarily stock-based outcome of resource ownership, DCs focus on the processes through which firms sense opportunities and threats, seize opportunities through timely strategic commitment, and transform by reconfiguring assets and organizational arrangements (Teece, 2007). This process view is particularly suited to turbulent contexts, where competitiveness depends on speed of learning, coordination, and continual strategic renewal (Eisenhardt & Martin, 2000). Yet, dynamic capabilities alone do not fully resolve the "sustained advantage" problem. Firms can be highly adaptive and still fail to secure durable performance if adaptation does not rest on distinctive, high-quality resources. Moreover, established strengths can become rigidities that constrain renewal, producing path dependence and inertia—what has been described as "core rigidities" emerging from "core capabilities" (Leonard-Barton, 1992). These observations suggest that sustained competitive advantage in dynamic markets is not adequately explained by RBV *or* DCs in isolation, but by understanding how resource endowments and renewal capabilities interact.

Building on this logic, this paper develops an integrated RBV–DCs framework for sustaining competitive advantage in dynamic markets. The central argument is that VRIN resources provide the *potential* for superior value creation and appropriation, while dynamic capabilities determine the firm's *ability to keep that potential strategically relevant* by continuously recombining, upgrading, and redeploying resources as environments evolve (Barney, 1991; Teece et al., 1997). Put differently, RBV specifies the *content* of advantage (what the firm has that rivals cannot easily obtain or imitate), whereas dynamic capabilities specify the *process* of advantage renewal (how the firm repeatedly refreshes and reorchestrates that content under

change) (Eisenhardt & Martin, 2000; Teece, 2007). This integration helps explain two recurring empirical puzzles: why firms with strong resource endowments can still lose leadership when markets shift, and why firms with strong adaptive routines may struggle to translate flexibility into sustained performance.

Accordingly, the paper proposes a comprehensive conceptual framework that links VRIN resources to sustained competitive advantage through the mechanisms of sensing, seizing, and transforming. The framework also highlights a core managerial tension: firms must protect and exploit their valuable resource base while simultaneously remaining willing to reconfigure it to avoid rigidity and resource depreciation (Leonard-Barton, 1992; Teece, 2007). By making this tension explicit, the framework moves beyond treating resources and capabilities as parallel explanations and instead offers an integrated guide for diagnosing competitive erosion and designing renewal strategies in dynamic markets.

The remainder of the paper is organized as follows. Section 2 reviews RBV and clarifies its explanatory strengths and limitations in dynamic contexts. Section 3 introduces the dynamic capabilities perspective and discusses its implications and boundary conditions. Section 4 develops the integrated RBV–DCs framework and articulates its key mechanisms and propositions. Section 5 outlines empirical applications and research directions for testing the framework across contexts characterized by volatility and technological disruption. Section 6 concludes with managerial implications and future research opportunities.

2. Literature Review

2.1 Resource-Based View (RBV): Core arguments and explanatory strengths

The Resource-Based View (RBV) explains inter-firm performance heterogeneity by shifting analysis from industry positioning to firm-specific resource endowments (Wernerfelt, 1984). Its central claim is that firms can achieve sustained competitive advantage when they control resources that are valuable, rare, inimitable, and non-substitutable (VRIN), and when these resources are effectively deployed through strategy (Barney, 1991). RBV thus provides a parsimonious logic for why some firms persistently outperform rivals even within the same competitive environment.

Building on this core logic, RBV scholars have clarified the conditions under which resource advantages translate into durable rents. For example, Peteraf (1993) synthesized four "cornerstones" for competitive advantage—resource heterogeneity, ex post limits to competition, imperfect mobility, and ex ante limits to competition—offering a structured explanation for sustainability rather than temporary performance differences. Related work distinguished between "resources" and "capabilities" and emphasized that strategic assets are those that are difficult to trade or replicate because they are embedded in history, social complexity, and causal ambiguity (Amit & Schoemaker, 1993; Barney, 1991). Importantly, RBV does not deny competition; rather, it argues that competitive outcomes depend on the distribution and defendability of strategic resources, not only on market structure.

2.2 RBV limitations in dynamic markets: The "static" critique and resource

erosion

Despite its strengths, RBV has been repeatedly critiqued for being comparatively static—it is powerful at explaining why VRIN resources matter, but less explicit about how firms renew those resources under high turbulence (Priem & Butler, 2001). In dynamic markets, the value of resources can decay quickly, and imitation barriers can weaken as technologies diffuse and organizational practices become standardized. Under such conditions, the key managerial challenge becomes not simply protecting strategic resources, but continually refreshing their value and relevance.

A related line of reasoning stresses that sustainability often depends on asset accumulation processes and time-compression diseconomies: some strategic assets cannot be acquired instantly through market transactions but require long-term building and path-dependent learning (Dierickx & Cool, 1989). However, path dependence is double-edged: it can protect uniqueness while simultaneously generating rigidity. Leonard-Barton (1992) famously captured this tension by arguing that "core capabilities" can become "core rigidities," constraining adaptation when environments shift. In other words, RBV can explain "why advantage exists," but in fast-changing contexts it must be complemented by a theory of how advantage is updated and how firms avoid capability traps.

2.3 Dynamic Capabilities (DCs): Renewal logic and microfoundations

Dynamic capabilities (DCs) research emerged largely to address RBV's renewal problem by focusing on a firm's ability to integrate, build, and reconfigure internal and external competencies in response to rapid change (Teece, Pisano, & Shuen, 1997). A widely used articulation emphasizes the firm's capacity to sense opportunities and threats, seize opportunities through investment and strategic commitment, and transform the organization by ongoing reconfiguration of assets and structures (Teece, 2007). This perspective aligns well with turbulent environments because it treats competitive advantage as a process of repeated renewal rather than a one-time outcome of resource ownership.

At the same time, DCs scholarship has sought to clarify what dynamic capabilities are *not*. Eisenhardt and Martin (2000) argued that dynamic capabilities often take the form of identifiable routines (e.g., product development, alliance formation) and may be more common than early formulations implied; what differentiates performance is how effectively such routines are executed and combined, especially under high velocity. Winter (2003) further distinguished ordinary (operational) capabilities—those that enable day-to-day functioning—from dynamic capabilities, which change the resource base itself. Zollo and Winter (2002) emphasized learning mechanisms (experience accumulation, knowledge articulation, knowledge codification) as foundational to the development of dynamic capabilities, reinforcing the idea that renewal is not improvisation alone but often an outcome of patterned learning and governance.

2.4 Debates and boundary conditions in the DCs literature

While DCs provide a compelling renewal lens, the concept has faced challenges related to definitional clarity, measurability, and potential tautology (i.e., inferring capabilities from successful outcomes). Scholars have responded by proposing more precise definitions and by

separating capability existence from capability effectiveness (Barreto, 2010). Another ongoing debate concerns whether dynamic capabilities are rare sources of advantage or more broadly distributed routines whose performance effects depend on context, timing, and managerial orchestration (Eisenhardt & Martin, 2000; Teece, 2007). These debates matter because they imply that dynamic capabilities alone may not guarantee sustained advantage—firms may adapt frequently without generating durable differentiation if renewal lacks a distinctive resource base or coherent strategic direction.

2.5 Toward Integration: Why RBV and Dynamic Capabilities Should Be Unified

To clarify why the Resource-Based View (RBV) and dynamic capabilities (DCs) should be treated as complementary rather than competing perspectives, Table 1 summarizes their distinct explanatory emphases and the specific points at which they interlock in dynamic markets. Building on this comparison, this section synthesizes prior research to articulate the conceptual logic for integration and to specify the main theoretical gap that motivates the framework developed in the next section.

Table 1. Comparing RBV and Dynamic Capabilities and Their Complementarity in Dynamic Markets

Dimension	Resource-Based View (RBV)	Dynamic Capabilities (DCs)	Complementarity (Why integrate?)
Primary focus	Explains the sources of advantage: what strategic resources a firm owns	Explains the renewal process: how a firm changes and reconfigures its resource base	"What you have" (resource stocks) + "how you renew" (capability flows) jointly determine sustained advantage
Core constructs	VRIN resources; resource heterogeneity; isolating mechanisms	Sensing–Seizing–Transforming; orchestration; reconfiguration	VRIN provides strategic potential; DCs determine whether that potential stays relevant under change
Mechanism of advantage	Differentiation via rarity and inimitability; protection from imitation/substitution	Adaptation via learning, experimentation, and timely reallocation	RBV protects value; DCs refresh and redeploy value to avoid depreciation
Implicit environmental fit	Stronger explanatory power in stable to moderately dynamic contexts	Designed for high dynamism, volatility, and discontinuous change	Dynamic contexts require both defense (protection) and offense (renewal)
Key strength	Clear explanation of persistent performance	Clear explanation of how firms remain adaptive and innovative over time	Integration explains both persistence and renewability of

Dimension	Resource-Based View (RBV)	Dynamic Capabilities (DCs)	Complementarity (Why integrate?)
	differences through defendable resources		advantage
Typical limitation	Comparatively static; less explicit on how resources are updated under turbulence	Potential definitional/measurement ambiguity; routines may be widespread	RBV anchors "what matters"; DCs clarifies "how it stays valuable"
Managerial implication	Resource auditing; protection; building isolating mechanisms	Building learning systems; agility; continuous reconfiguration	Strategic balancing of protection/exploitation vs. transformation/redeployment
Prediction in high turbulence	Strong resources may still erode or become rigidities	Fast adaptation may still lack durable differentiation	Sustained advantage is best predicted by resource quality × renewal capacity

At a fundamental level, RBV and DCs address different segments of the same causal chain linking firm heterogeneity to sustained competitive advantage. RBV is primarily a content theory of advantage: it explains *what* gives firms an enduring edge by emphasizing VRIN resources and conditions that limit competitive erosion (Barney, 1991; Peteraf, 1993; Wernerfelt, 1984). In contrast, DCs is primarily a process theory of renewal: it explains *how* firms maintain strategic fit over time by repeatedly sensing changes, seizing opportunities, and transforming their resource base (Teece, Pisano, & Shuen, 1997; Teece, 2007). Put differently, RBV clarifies the strategic *inputs* and protectable value mechanisms, whereas DCs clarifies the *orchestration* mechanisms through which those inputs are updated under environmental dynamism.

This complementarity becomes most salient in turbulent environments, where competitive advantage increasingly behaves like a depreciating asset rather than a permanent possession. RBV implies that the sustainability of advantage depends on isolating mechanisms—causal ambiguity, social complexity, or unique historical conditions—that make strategic resources difficult to imitate or substitute (Barney, 1991; Peteraf, 1993). Yet, when technologies diffuse rapidly and business models evolve quickly, the value of a once-VRIN resource can erode, and the very routines that created advantage can harden into rigidities (Leonard-Barton, 1992). Dynamic capabilities research responds by emphasizing renewal and reconfiguration, but it also acknowledges that adaptive routines may be widely shared across firms and that superior performance often depends on the timing, quality, and effectiveness of managerial orchestration (Eisenhardt & Martin, 2000; Teece, 2007). Consequently, turbulence exposes a dual vulnerability: resource superiority without renewal risks obsolescence, while renewal without distinctive resources risks strategic motion without durable differentiation.

An integrated perspective therefore treats sustained competitive advantage in dynamic markets as a joint function of resource quality and renewal capacity. VRIN resources provide the *strategic potential* for value creation and appropriation; dynamic capabilities determine whether that potential remains *strategically relevant* as markets evolve (Barney, 1991; Teece et al., 1997). This framing also helps resolve a common empirical puzzle: firms with strong resource endowments may still lose leadership when they fail to reconfigure assets in time, and highly adaptive firms may still underperform when adaptation is not anchored in strategically valuable and defendable positions (Leonard-Barton, 1992; Winter, 2003). From this view, advantage is not sustained merely by *protecting* resources, nor merely by *changing* them, but by managing the tension between resource protection/exploitation and resource transformation/redeployment (Teece, 2007).

Importantly, the integration is not simply a conceptual addition of two theories; it requires specifying how they interact. First, VRIN resources can enable dynamic capabilities by providing informational advantages, slack, legitimacy, and complementary assets that support sensing and seizing (Teece, 2007). Second, dynamic capabilities can protect and upgrade VRIN resources by preventing value decay through timely recombination, learning, and reconfiguration (Teece et al., 1997; Zollo & Winter, 2002). Third, RBV helps address a core critique of the DCs literature—risks of tautology and measurement ambiguity—by anchoring renewal processes in observable resource endowments and isolating mechanisms rather than inferring capabilities directly from outcomes (Priem & Butler, 2001; Winter, 2003). Conversely, DCs helps address RBV's static critique by making explicit the mechanisms through which resource-based advantages remain renewable under turbulence (Eisenhardt & Martin, 2000; Teece, 2007). In this sense, integration improves explanatory completeness by linking resource heterogeneity to ongoing strategic re-orchestration.

Despite growing recognition of this complementarity, prior research still leaves an important gap: the literature lacks a sufficiently explicit mechanism-based framework that (a) maps VRIN resources to the micro-processes of sensing, seizing, and transforming, (b) explains when resource protection should dominate versus when reconfiguration should dominate, and (c) reframes "sustained" advantage in dynamic markets as renewability, speed of reconfiguration, and resilience rather than static persistence. Addressing this gap, the next section develops an integrated RBV–DCs framework that conceptualizes dynamic capabilities as the conversion mechanism through which VRIN resources are continually renewed and redeployed to generate enduring competitive outcomes under high dynamism.

3. Dynamic capabilities within an integrated RBV–DC lens: renewal mechanisms for sustained advantage in turbulent markets

3.1 Reframing "sustained advantage" as an evolutionary problem under continuous change

In contemporary strategy research, the primary challenge is no longer to explain *why* firms differ at a point in time, but to explain *how* they preserve (or systematically renew) advantage as technologies, ecosystems, and customer expectations evolve in a largely continuous manner.

Recent integrative reviews of the resource-based tradition emphasize that valuable resource positions must be understood as historically accumulated "stocks" whose strategic usefulness is contingent on renewal and redeployment, rather than as static endowments that automatically translate into durable rents (Pereira & Bamel, 2021). Within this framing, dynamic capabilities become analytically central because they specify the organizational and managerial mechanisms by which resource stocks are repeatedly refreshed, recombined, and re-aligned with shifting opportunity structures. A modern microfoundations turn in the literature also strengthens this point: instead of treating dynamic capabilities as abstract labels, scholars increasingly focus on the concrete cognitive, behavioral, and structural underpinnings that make sensing, seizing, and transforming feasible at scale and under uncertainty (Arndt et al., 2022). Thus, the integrated claim is not merely that "resources matter" and "adaptation matters," but that sustained advantage in turbulent markets is best theorized as an *evolutionary* outcome produced by the co-development of strategic resource positions and the renewal processes that keep those positions relevant.

3.2 Dynamic capabilities as a renewal architecture: sensing–seizing–transforming and their microfoundations

A particularly influential contemporary articulation conceptualizes dynamic capabilities as a higher-order renewal architecture organized around three interdependent clusters—sensing, seizing, and transforming—through which top management and the organization collectively diagnose environmental shifts, commit to courses of action, and reconfigure assets and activities to maintain performance under deep uncertainty (David J. Teece, 2025). This perspective is especially useful for integration because it treats dynamic capabilities as the *conversion mechanism* between resources and performance: without robust sensing, firms may misread the strategic meaning of technological or demand discontinuities; without seizing, they may fail to mobilize and orchestrate complementary assets quickly enough; and without transforming, they may remain locked into legacy architectures that convert prior strengths into rigidities when the competitive regime shifts. In parallel, recent work on digital transformation clarifies that these mechanisms increasingly depend on a distinct set of microfoundations—such as data-driven interpretive routines, rapid experimentation and prototyping practices, and governance arrangements that enable cross-functional orchestration—thereby showing how renewal becomes operationally feasible in digitally turbulent contexts (Kowalski et al., 2024). Importantly, the microfoundations emphasis is not a stylistic refinement: it materially improves theoretical testability by shifting the unit of analysis from ex post performance labels to observable processes (e.g., interpretive scanning routines, investment and commitment protocols, reconfiguration practices) that can be measured and compared across firms and contexts (Arndt et al., 2022).

3.3 The integration point: resource renewal, environmental shaping, and "sustained" advantage as continuous fitness

An integrated RBV–DC framework becomes theoretically powerful when it specifies *where* the two perspectives meet: namely, in the ongoing reconfiguration of strategically valuable resources and the managerial orchestration that preserves value creation and capture as the environment changes. Contemporary work argues that dynamic capabilities should not be restricted to reactive adaptation; rather, firms may also leverage them to *shape* elements of the

environment—through ecosystem design, boundary redefinition, and selective influence over standards and partner architectures—thereby reframing sustained advantage as "evolutionary fitness" achieved via both adaptation and shaping (Cristofaro, Teece, & Helfat, 2025). This view helps clarify why "sustained" advantage in dynamic markets is often less about holding a single position indefinitely and more about maintaining a persistent capacity to (a) continually re-fit resource bundles to emerging opportunities and (b) influence the selection environment in ways that stabilize or amplify the value of those bundles. Evidence from international and cross-border contexts reinforces this argument by showing that capability effectiveness is deeply contingent on complexity, dynamism, and coordination demands that rise with multi-market operations, making renewal and orchestration—not merely possession—decisive for long-run performance (Brock & Hitt, 2024). Finally, recent research on "phygital" ecosystems illustrates how the integration logic extends beyond purely digital settings: when advantage depends on hybrid physical–digital resource orchestration, dynamic capabilities become the organizing mechanism that aligns heterogeneous assets (technological, operational, relational) into a coherent, data-enabled configuration that can be repeatedly transformed as the ecosystem evolves (Moi, Pusceddu, & Cabiddu, 2026). Taken together, these contemporary streams support a parsimonious but rigorous integration: RBV clarifies *what* is strategically valuable and difficult to reproduce, while dynamic capabilities clarify *how* such value is repeatedly regenerated, recombined, and scaled under continuous change—thus making sustained competitive advantage an outcome of renewal capacity operating on strategically defensible resource foundations.

4. Integrative framework and propositions: linking VRIN resource stocks to sensing–seizing–transforming renewal flows

This section formalizes the integrative logic developed in the preceding review by specifying *how* strategically valuable resource stocks become a renewable basis for competitive advantage when markets are turbulent. Contemporary work revisiting the resource- and knowledge-based traditions emphasizes that resource heterogeneity remains essential for explaining differential rents, but it also underscores that the strategic value of resource stocks is not self-sustaining; instead, it is contingent on continuous recombination, upgrading, and redeployment as external conditions evolve (Pereira & Bamel, 2021). Building on this renewed view, the present framework treats VRIN-type assets—such as proprietary knowledge and data, relational capital embedded in ecosystems, and specialized organizational routines—as advantage stocks whose rent-generating potential depends on the quality of a firm's renewal processes. Dynamic capabilities supply that renewal logic. Recent dynamic capability scholarship, particularly in microfoundations-oriented work, conceptualizes sensing, seizing, and transforming as a structured architecture of managerial and organizational action that enables firms to interpret environmental signals, mobilize complementary assets, and reconfigure resource bundles at a pace and scale aligned with turbulence (Arndt et al., 2022; Teece, 2025). The integration claim is therefore not additive (RBV + DC), but *mechanistic*: the primary theoretical object is the conversion pathway through which renewal flows operate on resource stocks to produce a stream of competitive outcomes that remain valuable as the selection environment changes.

Formally, the framework posits a sequential—but recursively reinforcing—chain. First, resource stocks provide the foundational potential for advantage because they embody distinctiveness and enable value creation and appropriation; however, turbulence increases the probability that the marginal value of any given stock will decay through technological substitution, diffusion, and shifts in customer demand. Second, sensing operates as the interpretive gateway that determines whether firms recognize emergent threats and opportunities early enough to avoid resource obsolescence and to identify new value pools. Third, seizing translates interpretation into commitment by mobilizing investment, selecting strategic options, and orchestrating complementary assets, which is especially consequential under uncertainty where timing and coordination shape whether opportunities are captured or missed. Fourth, transforming (reconfiguring) sustains the system over time by recombining and redeploying assets, redesigning routines and governance, and enabling organizational renewal; in turbulent markets, transforming is the mechanism through which firms prevent historically accumulated strengths from becoming liabilities. The importance of this environment-facing logic has been reinforced by recent work arguing for renewed attention to the dynamic capabilities–environment nexus, emphasizing that capabilities support not only adaptation to change but also selective shaping of the environment through ecosystem and governance choices (Cristofaro et al., 2025; Teece, 2025). Moreover, the international business literature highlights that capability effectiveness is conditional on complexity and dynamism; in cross-border settings, superior outcomes depend on orchestration across multiple environments rather than merely on resource possession, making the renewal pathway especially central (Brock & Hitt, 2024).

Crucially, the framework is designed to address a persistent conceptual gap in both traditions: RBV risks appearing static if it does not specify how resource value is preserved under turbulence, while DC research risks appearing under-anchored if renewal processes are not tied to the strategic quality and defensibility of the assets being renewed. Accordingly, the framework treats renewal flows as the proximate driver of sustained advantage *under turbulence*, but it also treats resource stocks as the necessary foundation for *differentiation*—because renewal without strategically valuable assets may generate agility without durable rents. This implies a complementarity logic: resources raise the ceiling of value capture; renewal processes raise the durability and renewability of value capture. The propositions below translate this logic into researchable claims.

Propositions

Proposition 1 (Renewal-contingent value of VRIN stocks). In turbulent markets, the positive performance effect of strategically valuable resource stocks is contingent on renewal flows: firms with strong resource stocks will sustain advantage only when they also exhibit strong sensing, seizing, and transforming processes that continually re-fit those stocks to changing conditions (Pereira & Bamel, 2021; Teece, 2025).

Proposition 2 (Complementarity and interaction). Resource quality and dynamic capabilities interact rather than operate independently: the marginal returns to dynamic capabilities are higher when firms possess more defensible resource stocks, and the marginal returns to resource stocks are higher when firms possess stronger renewal processes (Brock & Hitt, 2024; Teece, 2025).

Proposition 3 (Transforming as the bottleneck under high turbulence). As environmental turbulence intensifies, transforming (reconfiguration) becomes the primary bottleneck linking sensing and seizing to sustained advantage because the main threat is not merely misperception or slow commitment but the inability to re-architect legacy assets, routines, and governance fast enough to prevent resource depreciation (Cristofaro et al., 2025; Teece, 2025).

Proposition 4 (Digital turbulence amplifies sensing–seizing payoffs). In digitally turbulent contexts, sensing and seizing yield stronger performance effects because data-intensive interpretation and rapid option selection compress decision cycles, enabling faster capture of emerging opportunities; however, these benefits persist only when transforming capabilities can institutionalize changes into scalable configurations (Saeedikiya et al., 2024; Teece, 2025).

Proposition 5 (Adapting–shaping and the durability of advantage). Firms that couple adaptation-oriented renewal (sensing–seizing–transforming) with shaping-oriented actions (e.g., ecosystem design, standards influence, partner architecture) achieve more durable advantage because shaping partially stabilizes the selection environment in ways that protect and amplify the value of renewed resource configurations (Cristofaro et al., 2025; Teece, 2025).

Proposition 6 (Cross-border complexity as a capability stress test). In international and multi-market settings, where complexity and heterogeneity in institutional environments increase coordination demands, the advantage effects of renewal flows strengthen because orchestration across markets becomes essential; conversely, weak renewal processes accelerate erosion even for firms with strong initial resource stocks (Brock & Hitt, 2024).

5. Implications and future research agenda: operationalizing the RBV–DC integration for theory-building and strategic practice

5.1 Theoretical implications: from "sustained" advantage to renewable advantage under turbulence

The integrated RBV–dynamic capabilities (DC) perspective implies a consequential reframing of sustained competitive advantage as a renewable outcome rather than a static consequence of superior endowments. Contemporary scholarship revisiting the evolution of resource- and knowledge-based reasoning suggests that the explanatory core of RBV remains compelling—heterogeneous strategic assets continue to underpin differential rents—but that the durability of their value in turbulent environments is conditional on how these assets are refreshed, recombined, and redeployed over time (Pereira & Bamel, 2021). In parallel, recent dynamic capabilities work calls for renewed attention to the capability–environment nexus and argues that the strategic problem is not merely "adapting faster," but sustaining fitness through the coupled processes of sensing, seizing, and transforming, including selective shaping of the environment via ecosystem and governance choices (Cristofaro et al., 2025; Teece, 2025). Taken together, the integration yields a clearer division of theoretical labor: RBV specifies the content and protectability of value creation (what is strategically distinctive), while DCs specifies the conversion and renewal mechanism (how distinctiveness remains strategically relevant under continuous change). This synthesis addresses RBV's static critique by explicitly incorporating resource depreciation and recombination, and it addresses common critiques of

DC research by grounding renewal processes in the strategic quality and defensibility of the assets being renewed, thereby encouraging mechanism-based theorizing rather than outcome-based labeling.

5.2 Managerial implications: designing renewal systems rather than episodic transformation projects

For strategic practice, the integrated framework implies that advantage in turbulent markets should be managed as a system of renewal, not as a sequence of episodic transformation initiatives. In this view, leaders must govern a persistent tension between (a) protecting and exploiting high-value resource stocks that generate current rents and (b) reconfiguring those same stocks to prevent obsolescence, rigidity, or misfit as competitive regimes shift. Recent work emphasizing the environment nexus highlights that dynamic capabilities can support not only adaptive responsiveness but also deliberate efforts to shape parts of the competitive environment, implying that ecosystem design, partner architectures, and standard-setting efforts can function as strategic levers that stabilize or amplify the value of renewed resource bundles (Cristofaro et al., 2025; Teece, 2025). This argument has direct implications for organizational design: sensing requires interpretive infrastructure (structured scanning, analytic interpretation, and leadership attention that reduces cognitive lock-in), seizing requires decision systems that can commit resources rapidly under uncertainty while preserving strategic coherence, and transforming requires governance and incentive arrangements that enable reconfiguration, divestment, and recombination without being blocked by legacy power structures. The practical managerial test is whether an organization can repeatedly convert weak signals into coherent commitments and then into scalable reconfigurations—because under turbulence, advantage often erodes not due to a shortage of ideas or data, but due to insufficient capacity to institutionalize change into durable configurations.

5.3 Research operationalization: measuring stocks, flows, and alignment to avoid conceptual slippage

A major implication for theory-building is that empirical research should operationalize RBV–DC integration as an interaction among resource stock quality, renewal-flow capacity, and resource–capability alignment, rather than measuring "resources" and "capabilities" as broad, undifferentiated composites. The renewed RBV/KBV stream provides a rationale for treating resource stocks as historically accumulated asset bundles whose strategic value can decay and whose protectability varies across contexts (Pereira & Bamel, 2021). The microfoundations turn in DC research similarly encourages scholars to specify sensing, seizing, and transforming as observable processes—interpretation routines, commitment mechanisms, and reconfiguration practices—rather than inferring capabilities directly from performance (Arndt et al., 2022; Teece, 2025). Accordingly, operationalization should proceed in three steps. First, scholars should disaggregate resource stocks into theoretically meaningful categories (e.g., proprietary knowledge and data assets, relational capital embedded in ecosystems, specialized human capital, and proprietary routines). Second, scholars should measure renewal flows using process indicators that correspond to the sensing–seizing–transforming architecture (e.g., scanning intensity and interpretive accuracy for sensing; investment speed and complementary-asset orchestration for seizing; reconfiguration frequency, divestment capacity, and structural redesign for transforming). Third, scholars should explicitly model alignment by

evaluating whether renewal is directed toward upgrading and redeploying the specific assets that underwrite differentiation. This alignment component is analytically essential because it differentiates productive renewal from "activity without advantage": firms may display high rates of change yet fail to sustain rents if renewal is misdirected, fragmented, or not anchored in strategically valuable resource positions. Table 2 provides a concise operational map of these constructs and illustrates representative indicators that can be adapted to different empirical contexts and industry settings.

Table 2. Operationalizing the RBV–DC integration (3-column version)

Construct (block)	What it captures	Illustrative indicators / empirical proxies (examples)
Resource stock quality (RBV side)	The strategic value and defendability of advantage "stocks"	Proprietary knowledge intensity; data asset sophistication; specialized human capital depth; IP/patent strength; relational capital embedded in ecosystems; uniqueness of key routines (Pereira & Bamel, 2021)
Sensing (DC flow 1)	Early detection and interpretation of threats/opportunities	Frequency and breadth of environmental scanning; analytics/market-intelligence investment; external search breadth; cross-unit information sharing and interpretation routines (Teece, 2025)
Seizing (DC flow 2)	Speed/quality of commitment and orchestration	Decision-cycle time; speed of resource mobilization; portfolio reallocation rate; ability to secure complementary assets (alliances/M&A); execution coordination quality (Teece, 2025)
Transforming (DC flow 3)	Reconfiguration of assets, routines, and governance	Frequency of restructuring/redeployment; divestment and recombination intensity; organizational redesign; modularization; redeployment of talent/assets across units (Teece, 2025)
Resource–capability alignment (integration term)	Whether renewal flows actually upgrade the assets that underpin differentiation	Fit between sensed signals and investment choices; coherence between seizing decisions and existing resource base; extent to which transforming upgrades core strategic assets rather than peripheral change (Cristofaro et al., 2025)
Boundary conditions (moderators)	When the conversion pathway strengthens or weakens	Environmental turbulence/complexity; technological discontinuity; cross-border

Construct (block)	What it captures	Illustrative indicators / empirical proxies (examples)
		institutional heterogeneity; ecosystem dependence (Brock & Hitt, 2024)
Outcome: renewable advantage	Persistence of superior performance via renewal rather than static persistence	Profitability resilience after shocks; time-to-recover; sustained innovation output; persistence of abnormal returns; market-share stability under turbulence (Brock & Hitt, 2024)

5.4 Future research agenda: longitudinal designs, configuration logic, adapting–shaping duality, and cross-border complexity

The integrated framework motivates a cumulative research agenda centered on four themes. First, because the focal constructs are inherently temporal—resource depreciation, recombination, and renewal—future research should prioritize longitudinal and process-sensitive designs capable of capturing sequencing, speed, and persistence of renewal rather than relying solely on cross-sectional proxies; the most theoretically meaningful variance is expected to lie in renewal trajectories rather than in static levels of resources or capabilities. Second, future work should examine configuration and bottleneck effects across sensing, seizing, and transforming, because the framework implies that sustained advantage may depend on balanced capability systems or on context-specific complementarities, and that bottlenecks—often transforming—may systematically explain why firms fail to convert insight into durable advantage. Third, scholars should theorize the adapting–shaping duality more precisely by distinguishing when dynamic capabilities operate primarily to adapt to external change versus when they operate to shape ecosystems and governance arrangements in ways that stabilize the selection environment; recent work explicitly calls for refocusing on this environment nexus, making it a timely locus for theoretical refinement and empirical testing (Cristofaro et al., 2025; Teece, 2025). Fourth, cross-border and multi-market settings offer a particularly revealing empirical context because institutional heterogeneity and coordination complexity magnify orchestration demands; recent synthesis in international business suggests that dynamic capabilities are especially consequential under such complexity, implying that the RBV–DC conversion pathway should display stronger associations with sustained performance when firms must coordinate renewal across heterogeneous environments (Brock & Hitt, 2024). In combination, these directions encourage a research program that treats sustained advantage in turbulent markets as an empirically tractable phenomenon: defensible resource stocks whose value is maintained through identifiable renewal processes under clearly specified boundary conditions.

6. Conclusion and discussion

6.1 Integrative summary: sustained advantage as a renewable outcome in turbulent markets

This paper developed an integrated argument that reframes sustained competitive advantage in turbulent markets as a renewable outcome rather than a static consequence of superior endowments. The central claim is that durable superiority under continuous change cannot be explained adequately by resource possession alone, because the strategic value of any resource stock is exposed to depreciation through technological substitution, diffusion of best practices, shifting ecosystem roles, and volatility in customer preferences. At the same time, explaining advantage purely through adaptation risks overstating the performance implications of change itself, because renewal activities can be frequent yet strategically unproductive when they are fragmented, poorly coordinated, or not anchored in distinctive assets. The integration therefore advances a stock–flow logic: strategically valuable resource stocks constitute the basis for differentiation, while renewal flows—organized as sensing, seizing, and transforming—provide the mechanism through which those stocks are repeatedly refreshed, recombined, and redeployed to remain valuable as the competitive regime evolves. In this view, "sustained" advantage is not defined as the indefinite persistence of a single positional advantage; it is defined as the capacity to maintain a continuing stream of value creation and capture by repeatedly updating the resource base and its deployment logic in response to ongoing turbulence.

6.2 Theoretical discussion: sharpening concepts and reducing explanatory blind spots

The integrated perspective clarifies the conceptual division of labor between resource positions and renewal mechanisms, thereby reducing blind spots that emerge when each perspective is used in isolation. A resource-centric explanation becomes incomplete in turbulent markets unless it specifies how resources remain valuable over time; the challenge is not only acquiring or protecting valuable assets but preventing those assets from becoming obsolete or rigid in the face of market shifts. Conversely, a capability-centric explanation becomes analytically fragile if it treats capabilities as broad descriptors inferred from performance or as context-free virtues; renewal processes must be specified as identifiable and observable mechanisms, and their effects must be anchored in the strategic content of the assets being renewed. The integration makes this anchoring explicit by elevating resource–capability alignment as a core explanatory component. Alignment matters because it differentiates renewal that preserves and extends distinctive advantage from renewal that merely increases organizational motion without improving strategic position. Under turbulence, firms often sense change and even seize opportunities through new initiatives, yet still fail to sustain advantage because they cannot transform: they cannot re-architect routines, governance, and asset configurations at the pace required, or they transform in ways that fail to upgrade the specific assets that drive differentiation. Conceptually, the integrated lens therefore shifts strategy theorizing from asking whether a firm has "resources" or "capabilities" to asking whether it possesses a coherent renewal system that repeatedly converts environmental signals into timely commitments and scalable reconfigurations that preserve the value of distinctive assets.

6.3 Practical discussion: a renewal-system view of strategic management

From a managerial standpoint, the integration implies that leadership attention should move away from episodic transformation projects toward the design and cultivation of institutionalized renewal systems. Under turbulence, managers face a persistent tension: they

must protect and exploit assets that generate current rents while simultaneously avoiding rigidity that locks the organization into historically successful but increasingly misaligned configurations. A renewal-system view treats sensing, seizing, and transforming not as occasional responses but as coordinated managerial processes that must be continually maintained and improved. Sensing requires interpretive infrastructure that can detect weak signals and separate noise from meaningful shifts; seizing requires commitment mechanisms that enable rapid resource mobilization while maintaining strategic coherence; transforming requires governance, incentives, and organizational architecture that allow recombination, divestment, redeployment, and redesign without being blocked by legacy structures or local optimization. The practical implication is that advantage erodes less because firms do not "know" what to do, and more because they cannot reliably execute the conversion from interpretation to commitment to reconfiguration at scale. The integrated lens therefore encourages managers to audit not only their asset portfolio but also the reliability and coherence of their renewal processes, with particular attention to whether renewal is directed toward upgrading the assets that actually underpin differentiation.

6.4 Limitations and future directions: toward cumulative and testable renewal-based strategy research

As a conceptual integration, the framework prioritizes clarity and mechanism specification, but it also implies important limitations and a clear agenda for future research. First, the core logic is inherently temporal: depreciation, recombination, and renewal unfold over time, which means that cross-sectional evidence will often be insufficient for capturing the dynamics that the theory emphasizes. Future studies should therefore adopt longitudinal and process-sensitive designs that can observe renewal trajectories, timing, and persistence. Second, the framework implies that renewal processes may exhibit configuration and bottleneck effects: strong sensing without strong transforming may lead to "insight without impact," and frequent seizing without coherent reconfiguration may create initiative overload and strategic drift. This suggests that future research should examine whether certain combinations of renewal mechanisms are necessary for renewable advantage under different degrees of turbulence and complexity. Third, the framework treats turbulence and complexity not as passive background features but as selection forces that shape which renewal processes matter most, when they matter, and how quickly resource value decays; future work should therefore specify boundary conditions more precisely and explore how renewal systems differ across industries, ecosystem structures, and multi-market contexts. Finally, greater conceptual progress depends on improved operationalization: future research should develop measures that distinguish resource stock quality, renewal-flow capacity, and alignment, and should test how their interaction shapes resilient performance and sustained value capture under continuous change. In combination, these directions would move the integrated RBV–DC lens from a persuasive conceptual synthesis toward a cumulative research program in which renewable advantage becomes an empirically tractable and practically actionable construct.

References

Amit, R., & Schoemaker, P. J. H. (1993). Strategic assets and organizational rent. *Strategic Management Journal, 14*(1), 33–46. https://doi.org/10.1002/smj.4250140105

Arndt, F., Galvin, P., Jansen, R. J. G., Lucas, G. J. M., & Su, P. (2022). Dynamic capabilities: New ideas, microfoundations, and criticism. *Journal of Management & Organization, 28*(3), 423–428. https://doi.org/10.1017/jmo.2022.57

Barney, J. B. (1991). Firm resources and sustained competitive advantage. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108

Barreto, I. (2010). Dynamic capabilities: A review of past research and an agenda for the future. *Journal of Management, 36*(1), 256–280. https://doi.org/10.1177/0149206309350776

Brock, D. M., & Hitt, M. A. (2024). Making sense of dynamic capabilities in international firms: Review, analysis, integration, and extension. *International Business Review, 33*(3), 102260. https://doi.org/10.1016/j.ibusrev.2024.102260

Cristofaro, M., Teece, D. J., & Helfat, C. E. (2025). Adapting, shaping, evolving: Refocusing on the dynamic capabilities–environment nexus. *Academy of Management Collections*. https://doi.org/10.5465/amc.2022.0008

Dierickx, I., & Cool, K. (1989). Asset stock accumulation and sustainability of competitive advantage. *Management Science, 35*(12), 1504–1511. https://doi.org/10.1287/mnsc.35.12.1504

Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they? *Strategic Management Journal, 21*(10–11), 1105–1121. https://doi.org/10.1002/1097-0266(200010/11)21:10/11<1105::AID-SMJ133>3.0.CO;2-E

Kowalski, M., Bernardes, R. C., Gomes, L., & Borini, F. M. (2024). Microfoundations of dynamic capabilities for digital transformation. *European Journal of Innovation Management, 28*(8), 3717–3746. https://doi.org/10.1108/EJIM-12-2023-1074

Leonard-Barton, D. (1992). Core capabilities and core rigidities: A paradox in managing new product development. *Strategic Management Journal, 13*(S1), 111–125. https://doi.org/10.1002/smj.4250131009

Moi, L., Pusceddu, G., & Cabiddu, F. (2026). Phygital dynamic capabilities: Microfoundations and their reversed interplay. *Technological Forecasting and Social Change, 223*, 124423. https://doi.org/10.1016/j.techfore.2025.124423

Pereira, V., & Bamel, U. (2021). Extending the resource and knowledge based view: A critical analysis into its theoretical evolution and future research directions. *Journal of Business Research, 132*, 557–570. https://doi.org/10.1016/j.jbusres.2021.04.021

Peteraf, M. A. (1993). The cornerstones of competitive advantage: A resource-based view. *Strategic Management Journal, 14*(3), 179–191. https://doi.org/10.1002/smj.4250140303

Priem, R. L., & Butler, J. E. (2001). Is the resource-based "view" a useful perspective for strategic management research? *Academy of Management Review, 26*(1), 22–40. https://doi.org/10.5465/amr.2001.4011928

Saeedikiya, M., et al. (2024). Toward a dynamic capability perspective of digital transformation. *Journal of Cleaner Production*. https://www.sciencedirect.com/science/article/pii/S0959652624001653

Teece, D. J. (2007). Explicating dynamic capabilities: The nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal, 28*(13), 1319–1350. https://doi.org/10.1002/smj.640

Teece, D. J. (2025). *Dynamic capabilities*. Cambridge University Press (Cambridge Elements). https://www.cambridge.org/core/elements/dynamic-capabilities/90101DC1EA1A6AFF9228C3FA4CD31930

Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal, 18*(7), 509–533. https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z

Wernerfelt, B. (1984). A resource-based view of the firm. *Strategic Management Journal, 5*(2), 171–180. https://doi.org/10.1002/smj.4250050207

Winter, S. G. (2003). Understanding dynamic capabilities. *Strategic Management Journal, 24*(10), 991–995. https://doi.org/10.1002/smj.318

Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. *Organization Science, 13*(3), 339–351. https://doi.org/10.1287/orsc.13.3.339.2780