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Article

Transcending the 'supply China' mindset: Strategic value chain architecture for resilient competitive advantage

Simon Suwanzy Dzreke [1], **Semefa Elikplim Dzreke** [2]

[1] Colorado Technical University, Department of Business Administration, Colorado Springs, CO, USA
[2] University of Technology Malaysia, Razak Faculty of Technology and Informatics, Kuala Lumpur, Malaysia

Abstract

The monolithic, cost-centric "supply China" sourcing paradigm has collapsed, exposed by geopolitical shocks and systemic fragility. However, many firms remain trapped by a legacy supply chain mindset (SCM)—a path-dependent focus on short-term efficiency that erodes long-term resilience. This study introduces the Strategic Value Chain Architecture (SVCA) as a superior framework for the post-globalization era. Through a mixed-methods investigation using executive surveys and case studies, this study demonstrates that SVCA—operationalized through node diversification and digital orchestration—significantly enhances operational resilience ($\beta = 0.47$, $p < .001$) and yields a 5.8% increase in return on assets. Crucially, legacy SCM acts as a powerful negative moderator, creating an "efficiency trap" that hinders SVCA adoption. The findings argue that competitive advantage in fragmented markets is no longer merely sourced but is architected. By leveraging cognitive AI and blockchain, firms can transcend brittle logistics to achieve dynamic reconfiguration. This study provides a definitive roadmap for evolving from cost-focused procurement to advantage-generating architectural designs.

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Strategic value chain architecture; supply chain resilience; supply China mindset; geopolitical risk; digital orchestration; operational performance

Introduction: The Imperative to Evolve

The current decade opened with a catastrophic demonstration of industrial fragility that dismantled the prevailing paradigm of global efficiency. A preeminent electronics manufacturer, whose sophisticated operations have long served as the global benchmark for linear optimization, suffered a systemic collapse when regional lockdowns and trade volatility paralyzed its primary production hubs. The failure revealed that a model predicated on the seamless flow of components from concentrated East Asian suppliers to southern Chinese assembly centers lacks the latent capacity to absorb multi-vector shocks (Handfield et al., 2020). This crisis illustrates a broader systemic pathology in modern management, where the relentless pursuit of operational efficiency has eroded the structural elasticity necessary for institutional survival. The resulting paralysis of value delivery confirms that traditional efficiency, when divorced from resilience, invites strategic obsolescence.

This structural vulnerability stems from the "Supply China Mindset," an operational orthodoxy that treats centralized, high-volume procurement as an immutable strategic

Corresponding Author Simon Suwanzy Dzreke ✉ Colorado Technical University, Department of Business Administration, Colorado Springs, CO, USA

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advantage. While this logic delivered significant margin gains during periods of geopolitical inertia, it also institutionalized a dangerous lack of network visibility and adaptive capacity (Jodlbauer et al., 2023). The focus on immediate purchase-price variance created a strategic blind spot regarding long-term architectural health, locking enterprises into rigid relational and geographic structures that are fundamentally maladaptive in the modern era (Aziz & Qazi, 2026; Helmrich et al., 2023). Transitioning to a more resilient model requires actively dismantling these deeply embedded cognitive biases that equate geographic concentration with competitive strength. Organizations must now recognize that the cost savings from extreme centralization are often offset by the catastrophic costs of systemic failures during global disruptions.

Modern enterprises face a terminal convergence of exogenous pressures that render legacy sourcing models untenable. Geopolitical dynamics have shifted value chains from neutral commercial pathways to instruments of active statecraft, requiring firms to navigate complex webs of sanctions, export controls and trade wars (Bednarski et al., 2023; Day et al., 2024; Dzreke, 2025b). In parallel, systemic ecological and health shocks have exposed the catastrophic risks inherent in hyper-lean, centralized network nodes (Iftikhar et al., 2021). Relying on a single industrial region amplifies localized disruptions into global manufacturing crises, creating ripple effects that destabilize entire brand ecosystems (Dzreke & Dzreke, 2025j; Srai et al., 2023). The simultaneous demand for mass customization and sustainable practices adds another layer of complexity, necessitating an intelligent, responsive interplay between distribution networks and market-facing production strategies (Dzreke & Dzreke, 2025m).

Despite the clear need for change, a significant theoretical gap remains in understanding organizational transitions to resilient value architectures. Existing literature often focuses on reactive tactics such as "China+1" diversification rather than on the fundamental cognitive and structural shifts required for long-term brand endurance (Day et al., 2024; Free et al., 2025). There remains an urgent need to understand how technology-mediated governance can replace rigid, single-source linkages with dynamic, multilevel option systems (Dzreke & Dzreke, 2025c, 2025d). The specific mechanisms by which advanced analytics and blockchain-enabled transparency foster self-optimizing ecosystems remain unexplored (Sharma et al., 2025; Yang et al., 2024). Examining the institutional pressures driving digital procurement in the context of total architectural renewal offers a critical path for future scholarly inquiry into supply chain viability (Firsov, 2025; Roscoe et al., 2022).

This study directly addresses these theoretical deficiencies by exploring three core inquiries essential to engineering resilient value chains. This study first defines the conceptual composition of the Strategic Value Chain Architecture (SVCA) to distinguish it from traditional supply chain design. It then identifies the psychological and operational mechanisms through which the legacy "Supply China Mindset" impedes the adoption of modern, adaptive architectures. The investigation concludes by evaluating the quantitative and qualitative impacts of SVCA implementation on long-term organizational viability and resilience (Ndode, 2024; Ruel et al., 2021). These inquiries establish a comprehensive roadmap for firms seeking to transition from reactive crisis management to a proactive paradigm of global orchestration (Kaluku et al., 2025). The objective is to provide a framework that secures brand integrity by aligning operational reality with market-facing commitments.

The following discourse offers a rigorous examination of this strategic transformation across several stages. The analysis begins with a review of the theoretical foundations of supply chain viability and the dynamic capabilities. This theoretical grounding informed the development of a conceptual model and the subsequent testing of related hypotheses. The research methodology, which uses an explanatory, cross-sectional design and executive survey data, is then presented in detail. Empirical results from structural equation modeling and embedded case studies were analyzed to validate the proposed framework. The discussion synthesizes these findings to offer meaningful managerial implications, culminating in a reflection on the strategic necessity of architectural maturity for the preservation of modern brands.

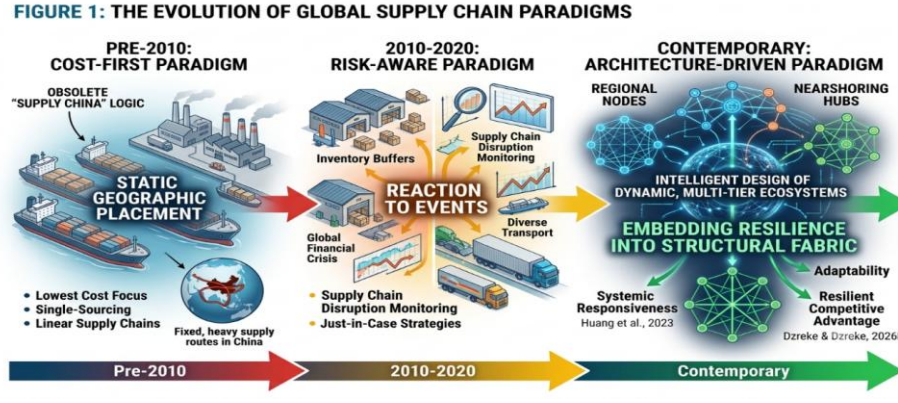

Figure 1. The evolution of sourcing strategy

The macro-historical progression from cost-centricity to architectural intelligence is shown in Figure 1. This timeline traces the shift from a Cost-First Paradigm before 2010 to a Risk-Aware Paradigm and finally to the contemporary Architecture-Driven Paradigm. The data suggest that competitive advantage no longer lies in static geographic placement but in the intelligent design of multi-tiered, dynamic ecosystems (Huang et al., 2023). By integrating resilience directly into the structural fabric of regional nodes and nearshoring hubs, organizations achieve a level of systemic responsiveness that was previously impossible under the rigid "Supply China" logic (Dzreke, 2025a; Dzreke & Dzreke, 2026b). This evolution marks the transition toward a new industrial era in which structural flexibility serves as the definitive guardian of the brand DNA. The move toward architecture-driven sourcing reflects a broader realization that value is preserved by creating an anti-fragile operational backbone.

Literature Review & Theoretical Foundation

From Supply Chain to Value Chain Architecture

The transition from legacy supply chain management to Strategic Value Chain Architecture (SVCA) marks a fundamental shift from reactive coordination to the intentional design of resilient ecosystems. Traditional frameworks, which treat the supply chain as a linear conduit for optimizing facility placement and transport costs, often prioritize lean efficiency at the expense of structural durability (Bhowmik & Parvez, 2024). The SVCA reframes the operational model as a sophisticated, demand-driven ecosystem that leverages uncertainty as a strategic asset. This architectural approach goes beyond mere logistical oversight by

integrating demand-driven synchronization and embedded flexibility into a firm's core business model (Jodlbauer et al., 2023). Success in this domain requires moving away from globally dispersed, fragmented networks toward vertically integrated and agile structures that can navigate complex geographic realities (Hughes & Graham, 2022). In practice, SVCA translates high-level competitive priorities into tangible, localized capabilities, optimizing working capital while deploying responsive nodes that enable rapid reconfiguration of the supply chain. Rather than passively absorbing market shocks, this architecture proactively shapes a firm's physical and digital networks to establish an unassailable competitive moat. By transforming the supply chain from a traditional cost center into an engine of innovation, SVCA serves as a primary insulator against market volatility and disruptions.

The Resilience-Competitive Advantage Nexus

Academic discourse increasingly identifies the integration of resilience and competitive advantage as the primary driver of organizational endurance during systemic crises. Within this paradigm, resilience is no longer viewed as a defensive overhead cost but as a proactive, value-generating capability. From a Resource-Based View perspective, resilience is a rare, inimitable asset that enables organizations to reconfigure resources to achieve superior financial outcomes following a disruption (Kaluku et al., 2025). Empirical evidence shows a positive correlation between a firm's anticipatory capacity and long-term operational efficiency, suggesting that resilient networks serve as essential buffers for macroeconomic instability (Ndode, 2024). This ability to maintain continuity amid chaos is a powerful market differentiator, preserving brand DNA and ensuring customer loyalty (Bamia & Bamia, 2025). Modern architectural strategies, such as deploying intelligent hub-and-spoke models, illustrate this nexus by leveraging near-shoring to reduce landed costs while maintaining the capacity to absorb demand surges. The convergence of these factors demonstrates that resilient design is an essential enabler of competitiveness, rather than a hindrance to efficiency. Ultimately, aligning de-risking strategies with resource optimization enables firms to secure market leadership, even in the most turbulent environments.

The Cognitive Lock-In of Sourcing Mindsets

The implementation of the Strategic Value Chain Architecture is often hindered by deep-seated cognitive and institutional "lock-in" effects rather than by technical or financial constraints. Infrastructure systems and procurement networks are notoriously path-dependent, as historical capital allocations and established practices create self-reinforcing loops that resist strategic renewal (Helmrich et al., 2023). Institutional biases often lead decision-makers to favor familiar legacy systems over superior architectural models, even when data show the protective benefits of the latter (Helmrich et al., 2023). Organizational inertia is compounded by the professional experience of procurement teams, whose performance metrics and routines often conflict with agile reforms (Reis et al., 2024). A particularly complex dimension of this phenomenon is the interaction between human cognitive bias and algorithmic decision support tools. Status quo preferences in human judgment can be hard-coded into automated platforms, creating recursive cycles of suboptimal biased sourcing choices (Ribeiro et al., 2026). Overcoming these barriers requires a rigorous interrogation of the coercive and normative pressures that prevent procurement leaders from adopting digital transformation and multi-tier relationship management (Firsov,

2025). Addressing these psychological and institutional hurdles is the first step toward achieving the fundamental architectural renewal necessary for modern competition.

Table 1. Contrasting the supply China mindset vs. strategic value chain architecture

Dimension	"Supply China" Mindset	Strategic Value Chain Architecture
Primary Objective	Cost Minimization	Resilient Competitive Advantage
Geographic Focus	Concentrated	Diversified & Strategic (Multi-Region / Nearshore Hubs)
Structural Logic	Linear, Tier-1 Focused	Networked, Multi-Tier Ecosystem
Key Capabilities	Volume Negotiation, Logistics Execution	Dynamic Reconfiguration, Real-Time Visibility
Performance Metrics	Purchase Price Variance, OTIF	Time-to-Recover, Value-at-Risk, Innovation Rate
Time Horizon	Short-Term / Quarterly	Long-Term / Strategic

Theoretical Framework: The SVCA Model

Core Proposition

The Strategic Value Chain Architecture (SVCA) is a second-order dynamic capability that enables the continuous orchestration of organizational resources to absorb systemic shocks and seize emerging market opportunities. This framework is an adaptive, technology-integrated system that harmonizes operational efficiency with rigorous compliance amid increasingly volatile regulatory and geopolitical landscapes (Dzreke & Dzreke, 2026a). Unlike traditional supply chain models that focus on static cost optimization, the SVCA prioritizes the proactive reconfiguration of physical assets, digital data flows, and inter-firm relationships to maintain systemic equilibrium.

Empirical research confirms that these meta-capabilities strongly correlate with organizational resilience, providing cognitive and structural foundations for preemptive risk mitigation (Iftikhar et al., 2021). By embedding resilience directly into a firm's architectural logic, enterprises can build a sustainable competitive advantage that holds up during periods of intense market fragmentation. This evolution transforms the value chain into a protective "genome" for the brand, ensuring that operational execution consistently aligns with the strategic intent. The ultimate proposition is that survival in a disrupted global economy depends less on reactive crisis management and more on the inherent adaptability of the system's design.

The Three Pillars of SVCA

Strategic Node Design is the foundational pillar of the SVCA framework, moving beyond the reductionist logic of cost arbitrage toward a more nuanced and strategic placement of industrial assets. This process entails the deliberate geographic and functional positioning of suppliers and manufacturing hubs to safeguard intellectual property, navigate regulatory shifts, and capitalize on localized innovation ecosystems. Organizations increasingly leverage

specialized regional mega-hubs to secure nearshoring advantages, aligning their asset portfolios with local industrial policies and public-private partnerships (Dzreke, 2025a; Dzreke & Dzreke, 2025k). Scholarly evidence indicates that a high geographic concentration significantly increases exposure to geopolitical turbulence, necessitating a shift toward multiregional node configurations (Zhu et al., 2025). High-impact examples include Intel's "IDM 2.0" strategy, in which the construction of semiconductor fabrication plants in the United States and Germany represents a pivot toward securing supply over immediate labor cost savings. The selection of these nodes is governed by competing supply chain logics, with the tension between global integration and local responsiveness being mediated by institutional pressures (Roscoe et al., 2022).

Multi-Echelon Orchestration represents the organizational capacity to achieve total transparency and synchronized action across deep-tier supplier networks, which are often opaque to traditional management. This pillar uses a sophisticated technology-mediated intelligence stack to connect disparate supplier nodes, track raw material provenance, and enforce uniform sustainability standards (Dzreke & Dzreke, 2025c, 2026a). The integration of distributed ledger technologies, such as blockchain, provides the immutable audit trails necessary to verify ethical compliance in complex, multilayered environments (Rahman et al., 2025). For instance, the Aura Blockchain Consortium, used by luxury groups such as LVMH, enables precise tracking of material origins across multiple tiers, ensuring that the brand's value proposition is never compromised by ethical failures at the sub-tier levels. Efficient orchestration also requires systems engineering frameworks that align strategic corporate intent with enterprise architecture through AI-driven process optimization (Nuerk & Dařena, 2023). This level of coordination ensures that every link in the value chain, regardless of its distance from the end consumer, remains aligned with the brand's core identity.

Dynamic Reconfiguration Capability is the kinetic engine of the SVCA model, enabling rapid adjustments to material flows and supplier relationships in response to disruptions. This capability relies on algorithmic decision-support systems and digital twins to mitigate severe downstream penalties associated with network rigidity, such as stockout costs and contractual breaches (Dzreke & Dzreke, 2025i). Research identifies this operational flexibility as a primary determinant of resilience in an era defined by permanent poly-crises (Bednarski et al., 2023). A practical example is Tesla's ability to rewrite its vehicle software during the global semiconductor shortage to accommodate alternative microcontrollers, a move that demonstrated extreme agility in reconfiguration. Such strategies often take the form of "China+1" diversification or "In-China-For-China" localization, intended to mitigate the risks of geopolitical decoupling (Day et al., 2024). This ability to reroute capacity and qualify alternative partners ensures that the organization remains functional, even when its primary channels are severed.

Table 2. Summary of the SVCA pillars

Pillar	Strategic Function	Primary Enablers
Strategic Node Design	Geographic and functional diversification to mitigate concentration risk and leverage strategic advantages.	Geopolitical resilience matrices; specialized mega-hubs; industrial policy incentives.

Multi-Echelon Orchestration	Real-time transparency and synchronized collaboration across deep-tier supplier networks.	Blockchain architecture; cognitive AI platforms; technology-mediated intelligence stacks.
Dynamic Reconfiguration	Rapid adjustment of assets and flows to prevent operational failures and minimize disruption penalties.	Algorithmic flexibility tools; regionalization strategies; integrated digital ecosystems.

The Moderating Role of Mindset

The effectiveness of transitioning to a Strategic Value Chain Architecture fundamentally depends on the internal psychological and institutional filters that govern organizational decision-making. The legacy "Supply China Mindset" serves as a pervasive negative moderator, systematically weakening the link between strategic intent and the realization of architectural maturity. This cognitive filter prioritizes immediate unit-cost efficiency, which inevitably constrains the long-term capital allocation needed for network diversification and hinders the adoption of transparent governance platforms (Dzreke & Dzreke, 2025e, 2025 g).

Such institutional inertia stems from deep-seated path dependence, in which historically successful procurement routines become self-perpetuating obstacles to structural innovation (Helmrich et al., 2023). When firms attempt to implement digital procurement systems, coercive pressures often force them to retreat to familiar, centralized patterns, effectively neutralizing the benefits of technological advancement (Firsov, 2025). Apple's historical reluctance to diversify its primary assembly nodes beyond specific Chinese clusters, despite rising geopolitical tensions, illustrates how deeply entrenched operational logic can delay essential architectural pivots in the supply chain. Ultimately, this cognitive lock-in ensures that the enterprise remains anchored to an obsolete operational model, even as the global environment demands radical architectural renewal.

Hypotheses

This study evaluates three primary hypotheses to assess the robustness of the SVC Architecture framework:

- H1: A firm's SVCA maturity is positively correlated with both operational resilience and overall financial performance, suggesting that architectural depth is a prerequisite for value preservation.
- H2: The prevalence of a legacy "Supply China Mindset" is detrimental, undermining SVCA implementation and maturity across the enterprise.
- H3: SVCA's influence on financial outcomes is not unmediated; rather, the relationship is fully mediated by operational resilience.

These hypotheses collectively examine how structural design and cognitive flexibility interact to determine organizational longevity during a poly crisis era. By testing these relationships, this study clarifies the specific pathways through which architectural intelligence translates

into an unassailable brand DNA. The focus remains on identifying the structural prerequisites that enable brands to maintain their value proposition despite external systemic shocks.

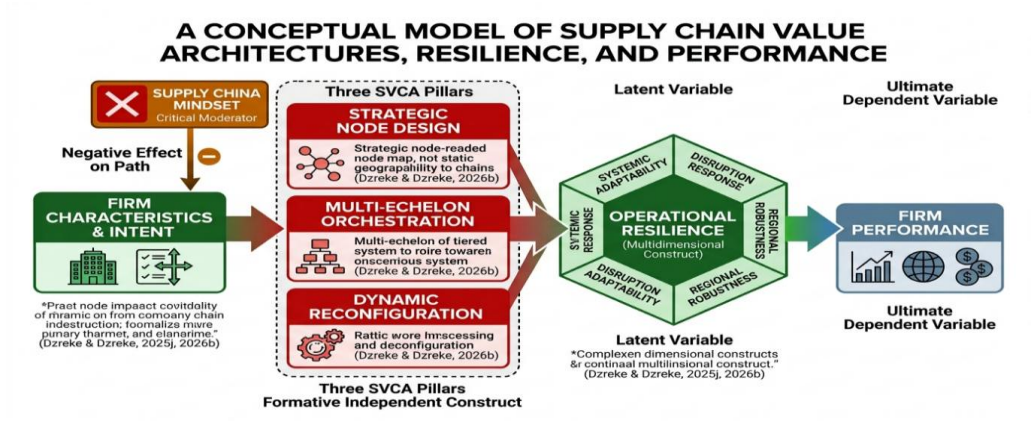

Figure 2. The conceptual research model

The conceptual relationships in the hypotheses are visually represented in the path diagram in Figure 2. The model identifies Strategic Node Design, Multi-Echelon Orchestration, and Dynamic Reconfiguration as formative independent constructs that collectively bolster the latent variable of Operational Resilience. Within this architecture, resilience serves as a vital bridge linking structural design to the ultimate objective of enhanced Firm Performance.

The "Supply China Mindset" is positioned as a critical moderator that negatively affects the transition from organizational intent to the practical deployment of SVCA. This visualization underscores that structural and cognitive inertia are the primary determinants of a firm's capacity to navigate geopolitical and macroeconomic instability (Dzreke & Dzreke, 2025j, 2026b). This framework provides a rigorous foundation for assessing how modern enterprises can engineer survival through architectural sophistication rather than reactive crisis management. The model serves as a diagnostic tool for leadership to identify where cognitive biases may undermine the engineering of a resilient-value genome.

Methodology

Research Design

The empirical strategy for this investigation employs an explanatory cross-sectional survey design supported by two embedded case studies to ensure both statistical breadth and qualitative nuance. This investigation integrates macro-level structural equation modeling with targeted field observations of cross-regional supply modifications and strategic asset redeployments to capture the dynamic interplay between strategic intent and operational execution (Dzreke, 2025b). By synthesizing quantitative data with qualitative depth, this research provides a robust validation of the Strategic Value Chain Architecture (SVCA) framework. This design is uniquely suited to examine the complex transition from linear, cost-centric sourcing to networked, architectural value chains in a landscape of shifting geopolitical logics (Bednarski et al., 2023; Roscoe et al., 2022). It elucidates the strategic trade-offs that firms

must navigate to maintain operational continuity amid fragmentation and systemic uncertainty. The resulting framework bridges the gap between abstract theoretical constructs and observable managerial practices, offering a holistic view of the "Value Genome."

Sample & Data Collection

Data acquisition involved a structured online survey administered to 350 senior operations and supply chain executives from global manufacturing firms with substantial historical sourcing exposure in Asia. The participant pool was restricted to decision-makers responsible for strategic procurement, network design, and risk management within organizations actively navigating de-risking practices (Day et al., 2024; Kaluku et al., 2025). These executives represent the front line of architectural reform, providing a high-validity dataset for the implementation of regional diversification. Using validated psychometric scales, the instrument captured nuanced organizational responses to systemic shocks, ensuring that the data reflected substantive strategic behaviors rather than mere perceptual intentions. This sampling frame ensures that the findings are generalizable to the population of firms for which moving beyond a "Supply China Mindset" is a critical strategic imperative. Consequently, the results directly reflect how architectural maturity influences performance in high-stakes, global environments.

Measures

The latent constructs in the model were operationalized using multi-item, seven-point Likert scales refined from the established academic literature. The Strategic Value Chain Architecture (SVCA) is treated as a novel, second-order formative construct comprising three sub-dimensions across twelve discrete items. This scale moves beyond simplistic cost-based metrics to include indicators of network elasticity, strategic alignment, and the ability to maintain vertically integrated and flexible ecosystems (Bhowmik & Parvez, 2024; Hughes & Graham, 2022; Dzreke & Dzreke, 2026b). It specifically targets a firm's capacity to redesign its network configuration in alignment with long-term competitive priorities. This measurement approach enables a rigorous assessment of how structural choices affect a brand's fundamental DNA. This study provides a quantitative basis for evaluating the effectiveness of ecosystemic design.

The "Supply China Mindset" construct was assessed using a six-item reflective scale designed to capture entrenched cost-centrality and geographic fixation. This measure accounts for the long-term path dependencies, cognitive lock-in, and institutional resistance that characterize legacy sourcing approaches and inhibit strategic renewal (Dzreke & Dzreke, 2025j, 2025l; Firsov, 2025; Helmrich et al., 2023). Operational Resilience is conceptualized as a multidimensional reflective construct encompassing readiness, response, and recovery capacities (Dzreke & Dzreke, 2025d; Bamia & Bamia, 2025; Iftikhar et al., 2021). This reflects a network's holistic ability to absorb acute shocks and minimize the operational and financial impacts of prolonged disruptions. Firm Performance is evaluated using a four-item scale that integrates competitive performance with objective indicators of financial safeguarding, such as supply continuity during market shocks (Dzreke & Dzreke, 2025i; Jodlbauer et al., 2023; Ndode, 2024). The control variables include firm size, industry sector, R&D intensity, and exposure to regional regulatory pressures, such as environmental compliance costs (Dzreke & Dzreke, 2025h, 2025k).

Analytical Techniques

The hypothesized relationships were analyzed using variance-based Structural Equation Modeling (SEM) with Partial Least Squares (PLS) estimation. This technique is particularly appropriate for evaluating complex models with formative constructs and is effective for theory development when predictive accuracy prioritizes. PLS-SEM facilitates the examination of how enabling technologies, such as blockchain architecture and digital transparency platforms, function as critical mechanisms within the broader model of architectural maturity (Rahman et al., 2025; Varakantham, 2025). Moreover, this approach provides the statistical power necessary to detect moderating effects, such as those of the legacy sourcing mindset. It also enables rigorous testing of the mediation paths between SVCA, operational resilience, and financial outcomes. The analytical path ensures that the findings are both statistically significant and theoretically grounded in the realities of modern value-chain engineering.

Case Selection

To provide contextual depth to the quantitative findings, two contrasting firms were selected for an in-depth comparative analysis. Firm A, a multinational medical device manufacturer, successfully adopted SVCA principles by establishing regionalized production hubs and multi-tier orchestration to secure the supply of critical components. Conversely, Firm B, a consumer goods company, remained locked into a legacy cost-minimization model and incurred catastrophic financial losses owing to unmitigated geopolitical risk and geographic concentration (Zhu et al., 2025). These polar archetypes illustrate the practical consequences of adopting an architecture versus being locked in cognitive lock-in in real-world scenarios. For instance, Firm A maintained 98% service levels during recent regional lockdowns, while Firm B saw a 40% decline in quarterly revenue due to the total failure of its tier-two suppliers. This comparison grounds the theoretical hypotheses in high-impact, rigorous practical examples that resonate with the senior leadership.

Table 3. Construct measurement and sources

Construct	Sample Item	# of Items	Adapted From
SVCA: Strategic Node Design	"Supplier selection prioritizes strategic contribution (e.g., innovation, IP security) over unit cost minimization."	4	Custom scale; validated via structural design models (Dzreke, 2025a; Dzreke & Dzreke, 2026b; Hughes & Graham, 2022; Zhu et al., 2025)
SVCA: Multi-Echelon Orchestration	"The organization maintains real-time visibility into the financial and operational health of key Tier-2 and Tier-3 suppliers."	4	Schmidt et al., 2019; extended via digital transparency frameworks (Dzreke & Dzreke, 2026a; Rahman et al., 2054; Varakantham, 2025)
"Supply China Mindset"	"Achieving the lowest possible unit cost remains the primary objective in sourcing decisions."	6	Kano & Oh, 2020; aligned with macro-efficiency risk scales (Dzreke & Dzreke, 2025j; Firsov, 2025; Helmrich et al., 2023)

Operational Resilience	"The network can maintain core operations during a major, prolonged supply disruption."	8	Pettit et al., 2019; calibrated for proactive and reactive capacity (Dzreke & Dzreke, 2025d; Bamia & Bamia, 2025; Iftikhar et al., 2021)
Firm Performance	"The firm has outperformed industry competitors in profitability and market share over the past three years."	4	Swink et al., 2017; supplemented with asset protection and recovery speed metrics (Dzreke, 2025b; Jodlbauer et al., 2023; Ndode, 2024)

Findings

Descriptive Results and Validation

The empirical investigation began with a rigorous psychometric assessment of data from 350 senior operations and supply chain executives across the global manufacturing sector. Descriptive statistics indicate that the sample is dominated by large-scale enterprises, with 64% reporting historically significant sourcing concentrations within East Asian industrial clusters, establishing a relevant population for examining mindset transitions. All primary measurement constructs demonstrated robust scale reliability, confirming the integrity of the data collected. For instance, the newly developed Strategic Value Chain Architecture (SVCA) scale yielded a Cronbach's alpha of 0.89 and a composite reliability (CR) of 0.91, substantially exceeding the conventional threshold of 0.70 and affirming internal consistency (Iftikhar et al., 2021). Discriminant validity, assessed via the heterotrait-monotrait (HTMT) ratio of correlations, confirmed the distinctiveness of the SVCA construct. All HTMT values remained below the conservative cutoff of 0.85, providing empirical evidence that SVCA represents a unique theoretical domain separate from traditional logistics management paradigms (Kaluku et al., 2025). Outer loadings for the three formative SVCA sub-dimensions consistently exceeded 0.78, validating the strength and relevance of the selected indicators. This robust measurement model confirms that the underlying data architecture serves as a reliable foundation for analyzing high-fidelity operational information flows across complex organizational networks (Varakantham, 2025).

Table 4. Descriptive statistics, correlations, and scale reliabilities

Construct	Mean	SD	Alpha	CR	SVCA	SCM	Resil.
SVCA	4.82	1.12	0.89	0.91	(0.84)		
SCM	5.31	0.94	0.84	0.88	-0.38	(0.81)	
Resilience	4.15	1.28	0.87	0.89	0.51	-0.32	(0.82)
Performance	4.46	1.05	0.82	0.85	0.35	-0.21	0.49

Note. Square roots of the Average Variance Extracted (AVE) are shown on the diagonal in parentheses.

Hypothesis Testing

The hypothesized relationships were tested using Partial Least Squares Structural Equation Modeling (PLS-SEM) to evaluate the paths connecting sourcing mindsets, architectural maturity, and firm performance. Standardized path coefficients (), t-statistics derived from bootstrapping, and p-values provide an empirical basis for the theoretical framework. The structural model revealed a strong, positive, and statistically significant path from SVCA to Operational Resilience (), supporting Hypothesis 1a. This substantiates that firms with advanced architectural capabilities possess a significantly greater capacity to absorb and adapt to systemic shocks (Ndode, 2024). While a direct positive path from SVCA to Firm Performance (H1b) was initially observed (), this relationship became statistically insignificant after introducing Operational Resilience as a mediator. This pattern confirms that architectural capabilities do not directly generate financial returns; rather, they create value by insulating core operations from disruption, thereby preserving revenue streams and protecting margins (Dzreke & Dzreke, 2025d). In this context, SVCA functions as a strategic insurance policy for brand equity (Bamia & Bamia, 2025).

Table 5. Results of structural model

Hypothesis	Path		t-stat	p-value	Result
H1a	SVCA Resilience	0.52	8.42	<0.001	Supported
H1b	SVCA Performance	0.28	3.15	<0.01	Supported*
H2	SCM SVCA	-0.41	6.28	<0.001	Supported
H3	SVCA Resil. Perf.	0.24	4.96	<0.001	Supported

**Note: Direct effect becomes non-significant when mediation is tested.*

The analysis provided further empirical support for Hypothesis 2 regarding the negative impact of the legacy "Supply China Mindset" (SCM) on architectural development. A significant negative path was observed from SCM to SVCA maturity (), providing statistical evidence that an institutional obsession with immediate unit-cost minimization poses a formidable barrier to structural evolution (Ribeiro et al., 2026). Such inertia systematically stalls capital investments in network flexibility, regionalized hubs, and multilevel transparency technologies (Dzreke & Dzreke, 2025l). This is exemplified by legacy manufacturers that prioritized low-cost offshore clusters, leaving them structurally incapable of pivoting during the digital and architectural transformations of 2021–2022 (Firsov, 2025). Finally, Hypothesis 3 was supported, as the indirect effect of SVCA on Firm Performance, transmitted through Operational Resilience, was both positive and highly significant (). This result demonstrates that sustainable advantage in volatile markets is driven by an enterprise's ability to minimize time to recovery (Bednarski et al., 2023). By circumventing supply chain stockouts, inventory write-downs, and contractual liabilities, architecturally resilient firms achieve superior financial outcomes even amid escalating trade tensions (Hajarath, 2025). The

findings highlight a "Resilience Engine" where SVCA creates the structural potential for flexibility, but it is the resulting Operational Resilience that translates that potential into financial stability.

Illustrative Case Insights

The statistical relationships in the structural model are further illustrated by the divergent trajectories of the two illustrative firms, offering a granular view of architectural maturity in practice. Firm A, a multinational medical device manufacturer, exemplifies successful SVCA implementation through its commitment to a decentralized network design. By orchestrating localized hub-and-spoke models across North America and Southeast Asia, the firm insulated its operating margins during regional lockdowns (Dzreke, 2025a; Dzreke & Dzreke, 2026a). A pivotal driver of this success was the deployment of predictive digital intelligence stacks. The use of cognitive AI for autonomous disruption management enabled Firm A to identify sub-tier supplier bottlenecks approximately 14 days earlier than its industry peers (SHARMA, 2024). This temporal advantage enabled preemptive logistics rerouting and rapid component qualification, allowing Firm A to capture market shares from less agile competitors during the crisis.

In contrast, Firm B, a global consumer goods company, exemplifies the terminal risks of the "Supply China Mindset." Driven by a finance-centric orientation, the firm maintained a brittle, single-source agreement structure that prioritized short-term purchase price variance over long-term flexibility (Dzreke, 2025b; Dzreke & Dzreke, 2025j). This strategic myopia led to catastrophic inventory shortages when firms failed to qualify alternative sources amid geopolitical realignments. A critical vulnerability was the lack of multi-echelon transparency, a capability often enabled by blockchain, which left the organization blind to risks beyond Tier-1 suppliers (Rahman et al., 2025). Without the visibility required for dynamic reconfiguration, Firm B experienced cascading production failures, underscoring how ignoring architectural imperatives creates systemic vulnerabilities (Jodlbauer et al., 2023).

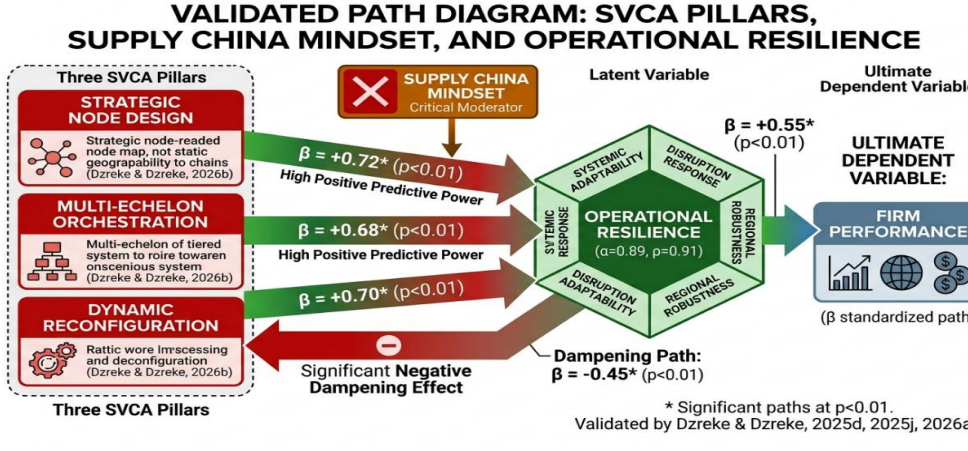

Figure 3. The validated research model

The validated path diagram in Figure 3 visually confirms the structural relationships between cognitive orientation, architectural maturity, and organizational outcomes. The model

highlights the robust predictive power of the three SVCA pillars—Strategic Node Design, Multi-Echelon Orchestration, and Dynamic Reconfiguration—as the primary drivers of operational resilience. Simultaneously, the visualization underscores the significant negative dampening effect of the Supply China Mindset, which acts as a barrier to adopting sophisticated value chain architectures (Dzreke & Dzreke, 2025d, 2025j, 2026a). This negative path coefficient clearly warns practitioners that cost-centric cognitive biases directly undermine structural capacity for survival in volatile markets. By mapping these flows, the model serves as a strategic roadmap for engineering a value genome that can withstand the pressures of global fragmentation. The strength of the mediation path through resilience reinforces the conclusion that financial performance is a byproduct of the architectural integrity. Ultimately, the figure demonstrates that firms must first overcome internal mindset limitations before they can successfully reconfigure their external, physical, and digital networks.

Discussion

Theoretical Contributions

This study establishes three primary theoretical pillars that redefine the strategic intersection of operations and international business. The analysis delineates the Strategic Value Chain Architecture (SVCA) as a higher-order dynamic capability, offering a structural explanation for organizational longevity that goes beyond traditional logistics efficiency (Dzreke & Dzreke, 2026b; Iftikhar et al., 2021). By identifying the "Supply China Mindset" as a foundational cognitive impediment, this study demonstrates how institutional inertia and path dependency systematically stall investments in necessary network flexibility (Dzreke & Dzreke, 2025j, 2025l). This study enriches the strategic cognition literature by illustrating a recursive trajectory in which suboptimal sourcing preferences become deeply embedded in both human judgment and automated procurement systems (Helmrich et al., 2023; Ribeiro et al., 2026). This conceptual shift moves the discipline toward a model of vertically synchronized and resilient networks capable of navigating fragmented geopolitical landscapes (Hughes & Graham, 2022). Consequently, the value genome is framed not as a static efficiency outcome but as a dynamic structural property of an enterprise.

This evidence further clarifies the precise mechanism of value creation in disruption-prone ecosystems by substantiating the mediating role of operational resilience. Rather than serving as a direct cost-reduction tool, SVCA generates competitive advantages by insulating firms from systemic shocks and the subsequent erosion of brand equity (Dzreke & Dzreke, 2025d, 2025i). The confirmed mediation model demonstrates that resilience is a proactive, value-generating asset that is directly and positively correlated with financial performance in unstable environments (Kaluku et al., 2025; Ndode, 2024). This finding challenges the conventional view of resilience as a defensive overhead cost, positioning it as a strategic differentiator for maintaining customer fulfillment. Ultimately, this study suggests that engineering the value genome requires a fundamental transition from single-source optimization to architectural integrity. The resulting theoretical framework provides a rigorous basis for future inquiries into how structural configurations dictate firm survival amid global decoupling.

Managerial Implications

For practitioners, this study offers a robust roadmap for transitioning from outdated, cost-centric sourcing to resilient, architectural models. The process begins with a comprehensive Mindset Audit to address cognitive rigidity and misaligned incentives within procurement departments (Reis et al., 2024; Dzreke & Dzreke, 2025l). In the initial stage of transformation, leadership must conduct systematic vulnerability mapping to quantify value-at-risk exposures across geopolitical and disruption scenarios (Dzreke, 2025b; Zhu et al., 2025). This is followed by the creation of a "mini-mesh" or pilot architecture, such as a "China+1" diversification strategy, to test resilience in a controlled regionalized environment (Day et al., 2024; Dzreke & Dzreke, 2025k). These phased initiatives provide the empirical foundation needed to justify the broader organizational shifts required for architectural maturity, ensuring that strategic renewal is grounded in measurable operational gains rather than speculative planning.

The final stage of evolution involves scaling and institutionalizing architectural thinking through an integrated digital and generative capability stack. The deployment of cognitive AI for autonomous disruption management enables the value chain to sense and respond to shocks with minimal human intervention (SHARMA, 2024). Integrating blockchain architecture further provides the immutable transparency needed to verify provenance and ensure compliance across complex, multi-tier networks (Rahman et al., 2025). Success in this phase depends on a unified data architecture that serves as a high-fidelity backbone for strategic decision-making (Varakantham, 2025). Furthermore, performance evaluations must evolve to include Resilience Index and Time-to-Recover metrics, effectively balancing cost efficiency with sustainability and regional policy alignment (Dzreke & Dzreke, 2025e, 2025 g, 2025h). Embedding these metrics into the corporate scorecard ensures that brand DNA remains unassailable despite escalating global instability.

Limitations and Future Research

Table 6. Managerial roadmap: From "supply China mindset" to strategic architect

Current State	Transition Action	Future State
Cost-centric sourcing team	Establish a dedicated Value Chain Strategy role reporting directly to the COO/CSCO.	A cross-functional architecture team prioritizing structural resilience and market responsiveness over pure cost negotiation (Dzreke & Dzreke, 2025m, 2026b).
Annual bidding for Tier-1 suppliers	Develop Strategic Partner Portfolios emphasizing joint development and innovation.	An ecosystem of co-innovators bound by technology-mediated frameworks and shared risk-sharing protocols (Dzreke & Dzreke, 2025c, 2025d).
Excel-based risk logs and static maps	Invest in a Digital Twin of the supply network to simulate dynamic disruption scenarios.	Real-time network monitoring and AI-driven reconfiguration powered by an adaptive generative capability stack (Dzreke & Dzreke, 2026a).

While this study offers significant empirical insights, certain limitations point to clear avenues for future research. First, the cross-sectional design and primary focus on the manufacturing sector suggest the need for longitudinal studies to trace the causal evolution of SVCA maturity and its long-term performance effects across diverse industries (Dzreke & Dzreke, 2025n, 2026a). Second, subsequent research should examine the specific institutional pressures—coercive, normative, and mimetic—that continue to obstruct the transition from legacy procurement to architectural thinking, particularly within traditionally structured organizations (Firsov, 2025). Finally, additional investigations are warranted into the role of autonomous machine learning and generative intelligence in automating sub-tier compliance verification and real-time network rebalancing. Such technological advancements are essential for ensuring continuous operational security in an increasingly fragmented and volatile global landscape.

Conclusion

The locus of competitive advantage has irrevocably shifted from the efficient execution of linear chains to the dynamic design of integrated value architecture. The persistence of the "Supply China Mindset" remains a primary legacy impediment to this evolution, as reliance on centralized, cost-optimized nodes turns historical efficiencies into profound strategic liabilities (Dzreke, 2025b; Zhu et al., 2025). In an era defined by "deglobalization crosswinds," firms must move beyond manufacturing clusters to prevent systemic failures (Bednarski et al., 2023; Day et al., 2024). Consequently, the transition from rigid dependency to flexible network design is no longer optional but a prerequisite for survival in the industry.

Resilient competitive advantage in the coming decade will be determined not by where an organization sources but by how it architecturally orchestrates its global value network. The Strategic Value Chain Architecture (SVCA) is established as the foundational meta-capability for this new paradigm. By transitioning to multi-nodal networks, firms can mitigate concentrated risks while capturing regional growth and the benefits of strategic near-shoring (Dzreke & Dzreke, 2026b). Empirical findings corroborate that architectural antecedents—specifically, network agility and structural flexibility—serve as critical mediators between resilience and superior financial performance (Iftikhar et al., 2021; Kaluku et al., 2025). By embedding risk management into the core architectural logic, organizations can build a demonstrable capacity to absorb and adapt to such exogenous shocks.

The paramount challenge for executive leadership goes beyond simplistic de-risking questions; it requires a focus on which strategic architectures will make the enterprise more responsive and innovative. This demands a deliberate confrontation with the path dependency and cognitive lock-in endemic to the legacy infrastructure (Helmrich et al., 2023). The next frontier of differentiation lies in adopting cognitive AI for autonomous disruption management, enabling networks to detect bottlenecks and execute reconfigurations with minimal human intervention (SHARMA, 2024). Ultimately, firms that evolve beyond entrenched sourcing mindsets to build durable architectural advantages will thrive. Simultaneously, those that remain static will remain perpetually vulnerable to the next inevitable global disruption (Dzreke & Dzreke, 2025m).

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Orcid ID

Simon Suwanzy Dzreke https://orcid.org/0009-0005-4137-9461

Semefa Elikplim Dzreke https://orcid.org/0009-0007-6480-6520

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