

VIETNAM'S PROACTIVE RESPONSE STRATEGY IN THE CONTEXT OF GLOBAL VALUE CHAIN DISRUPTIONS

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Received: 16 March 2026; Revised: 15 April 2026; Accepted: 7 May 2026

ABSTRACT

Global value chain (GVC) disruptions have become systemic risks for highly open economies. This study analyzes recent GVC restructuring, assesses Vietnam's vulnerability and response capacity, and proposes proactive strategic orientations for the 2026-2035 period. Using a qualitative strategic-analysis approach, the paper combines secondary-source synthesis, structured expert consultation, and PESTEL, IFE, EFE, and SWOT/TOWS analyses. The findings show that Vietnam benefits from a favorable geographic position, extensive international integration, and strong foreign direct investment (FDI) attraction, but remains constrained by dependence on imported inputs, low domestic value added, weak supporting industries, limited technological capability, and uneven supply-chain governance. The IFE and EFE results are used as decision-support inputs rather than standalone empirical evidence, helping trace the link between diagnostic factors and strategic choices. The paper proposes three connected strategy groups: core capacity building, competitiveness leveraging, and stabilization support. Its contribution lies in adapting established GVC, global production network (GPN), and supply-chain resilience perspectives into an applied national-level policy analysis framework for Vietnam.

Keywords: Global value chains, supply-chain disruption, supply-chain resilience, national strategic planning, Vietnam.

1. INTRODUCTION

1.1. Research context and problem statement

Global value chains (GVCs) are a dominant form of cross-border production, but their interdependence also creates systemic vulnerability: disruptions at one node can spread rapidly across suppliers, logistics routes, production sites, and final markets. Recent shocks, including COVID-19, trade tensions, geopolitical conflicts, climate-related disruptions, and technological fragmentation, show that GVCs are shifting from a relatively stable cost-optimization model toward a governance logic that balances efficiency, security, adaptability, and recovery capacity [1]-[3].

For Vietnam, deep GVC participation has supported export growth, foreign direct investment (FDI), employment, and restructuring, yet high openness also exposes manufacturing, logistics, and export-oriented agriculture to external shocks. Dependence on imported inputs, low domestic value added, slow development of supporting industries, and weak linkages between domestic enterprises and the FDI sector indicate that GVC disruption is not only a firm-level operational issue but also a national strategic challenge [4]-[6].

The key question is therefore not whether Vietnam should participate more deeply in GVCs, but how, at which stages, with what technological content, and with what domestic

linkages. In this paper, strategic positioning refers to an economy's capacity to select, coordinate, and upgrade its roles within value chains rather than passively remaining in low-value assembly or processing functions. Economies confined to assembly may expand exports quickly but remain vulnerable to low-value lock-in, whereas those moving into design support, testing, certification, value-added logistics, branding, and post-production services can build stronger capabilities [7], [3].

Accordingly, Vietnam's response to GVC disruptions should combine short-term adaptability with medium- and long-term capability upgrading. A proactive strategy must strengthen supporting industries, logistics connectivity, supply-chain governance, digital traceability, institutional coordination, and compliance with emerging environmental, social and governance (ESG) standards.

1.2. Research gap

International studies on GVCs have mainly examined value-chain governance, the effects of major shocks on supply chains, and conceptual frameworks for resilience, adaptation, recovery, and risk governance [8]-[11]. Although these studies provide important foundations, many remain at the global-system, firm, or supply-chain level, leaving less attention to how a developing economy can translate GVC disruption analysis into a national strategy linking industrial policy, logistics, trade governance, technological upgrading, and institutional coordination.

In Vietnam, previous studies and policy reports have discussed FDI attraction, exports, supporting industries, logistics, digital transformation, and enterprise competitiveness as separate or partially connected issues [4], [5], [13], [22]. Country-level diagnoses, including the World Bank's Viet Nam 2045 report, provide valuable evidence on upgrading and institutional reform, but they do not fully operationalize a transparent sequence connecting disruption drivers, internal capability constraints, external pressures, and TOWS-derived policy priorities for the 2026-2035 response horizon [13].

The gap addressed in this paper is therefore not the absence of studies on Vietnam's GVC participation or the absence of tools such as PESTEL, IFE, EFE, and SWOT/TOWS. Rather, it lies in the limited integration of these established perspectives into a coherent, reproducible, and policy-oriented process at the national level. This integration matters because post-pandemic investment, trade, and supply-chain repositioning are increasingly shaped by economic security, institutional reliability, green standards, digital traceability, and real-time coordination capacity [12], [2].

To avoid overstating novelty, the study positions its contribution as incremental and applied. It does not propose new theoretical constructs or a universal model of GVC resilience. Instead, it adapts and sequences existing GVC, global production network (GPN), supply-chain resilience, and strategic-planning perspectives to clarify Vietnam's strategic choices under GVC disruption and restructuring.

1.3. Research objectives, questions, and contributions

Based on the above gap, the paper pursues three objectives: (i) to clarify the nature and restructuring trends of GVC disruptions; (ii) to assess Vietnam's vulnerability, internal capability base, and response capacity; and (iii) to propose proactive strategic orientations for Vietnam in 2026-2035. Correspondingly, it addresses three research questions: (1) How are GVC disruptions affecting Vietnam's production, trade, logistics, and upgrading prospects? (2) What strengths, weaknesses, opportunities, and threats shape Vietnam's response capacity? (3) Which strategic orientations should Vietnam prioritize to strengthen resilience and upgrade its GVC position?

The paper makes three contributions. First, it organizes GVC, GPN, and supply-chain resilience concepts into a national-level analytical sequence from disruption diagnosis to strategic choice. Second, it treats IFE and EFE matrices as decision-support instruments rather than definitive empirical measurements, thereby clarifying the role of expert judgment, source triangulation, and sensitivity checking. Third, it links the diagnosis to policy priorities on supporting industries, selective FDI attraction, logistics modernization, digital transformation, market diversification, and ESG and technical-standard compliance.

Practically, the study offers an applied framework for Vietnam's medium- and long-term GVC strategy. Academically, it shows how established theoretical perspectives and strategic-analysis tools can be combined without overstating theoretical novelty. Given its qualitative, expert-informed design, the conclusions should be read as strategic orientations rather than causal estimates.

2. THEORETICAL FOUNDATION AND LITERATURE REVIEW

2.1. Global value chains and supply-chain disruptions

According to Gereffi et al. [8], global value chains (GVCs) reflect the spatial fragmentation of value-creating activities, in which design, input sourcing, production, logistics, distribution, marketing, and after-sales services can be organized across different countries. GVC participation enables firms and economies to exploit comparative advantages and join the international division of labor. For developing economies, however, participation should not be assessed only by export scale or foreign-invested projects, but also by chain position, domestic linkages, technological content, and the share of domestic value added that can be retained and upgraded.

Supply-chain disruptions refer to events that interrupt the flow of goods, information, services, or finance, thereby affecting delivery schedules, costs, production continuity, and chain performance [10], [11]. In GVCs, disruption rarely remains confined to one firm or stage because suppliers, assemblers, logistics providers, lead firms, and final markets are closely connected. Recent shocks, including pandemics, geopolitical fragmentation, climate risks, logistics congestion, and changes in technical or environmental standards, reveal the fragility of production systems optimized mainly for low cost, lean inventories, and single-source suppliers [1], [2], [10]. Consequently, GVC research has shifted from a narrow focus on participation toward upgrading, resilience, and risk governance.

The global production network (GPN) perspective complements GVC analysis by emphasizing the spatial, institutional, and relational organization of production [16]. This lens is useful for Vietnam because its GVC position is shaped simultaneously by foreign direct investment (FDI), domestic supplier capacity, logistics infrastructure, industrial clusters, state policy, and lead-firm governance. GVC disruptions should therefore be understood not only as external shocks, but also as tests of the domestic production ecosystem.

2.2. Response capacity and supply-chain risk governance

Supply-chain response capacity refers to the ability of a supply chain or production system to anticipate, absorb, adapt to, and recover from major shocks [9], [14]. In this paper, the term is used consistently with supply-chain resilience, but with emphasis on policy relevance at the national level. It includes four interrelated capacities: early risk identification, short-term shock absorption, adaptation through the reconfiguration of suppliers and markets, and recovery toward a more robust operating structure.

Supply-chain risk governance focuses on identifying risks, assessing their probability and impact, selecting response instruments, and coordinating action among firms, industries, and

state agencies [11]. For countries highly integrated into GVCs, risk governance extends beyond firm-level contingency planning. It includes industrial policy, logistics planning, trade diversification, digital infrastructure, standards support, and information coordination across ministries, regions, and business communities. Measures such as multi-sourcing, selective localization, strategic inventories, supplier-development programs, digital traceability, and cross-border logistics cooperation are therefore mutually reinforcing components of national response capacity.

Resilience-oriented strategies also involve trade-offs. Diversified suppliers, strategic reserves, environmental, social, and governance (ESG) compliance, and digital traceability may raise short-term costs, but they reduce the longer-term costs of production interruption, lost orders, reputational damage, and exclusion from higher-standard markets. This balance between efficiency and resilience is central to Vietnam's strategic choices for 2026-2035.

2.3. Analytical framework at the national level: GVC, GPN, and response capacity

At the national level, GVC analysis needs to move beyond firm logic toward production-ecosystem logic. Porter's value-chain model [15] helps identify value-creating stages, while the GPN approach explains how firms, institutions, territories, and governance structures interact in production organization [16]. For Vietnam, this broader lens is necessary because the capacity to respond to GVC disruptions depends on domestic suppliers, logistics connectivity, human resources, technology absorption, institutional coordination, and the strategic behavior of FDI enterprises.

This study combines three analytical layers. The structural layer identifies Vietnam's GVC position and bottlenecks affecting domestic value creation. The dynamic layer examines how shocks and restructuring trends reshape production networks and market requirements. The strategic layer connects internal capacity, external conditions, and policy priorities through PESTEL, IFE, EFE, and SWOT/TOWS analysis. This sequence is intended to make the reasoning traceable: global restructuring trends are identified, their implications for Vietnam are assessed, internal and external factors are weighted and interpreted, and strategic options are derived from explicit combinations of strengths, weaknesses, opportunities, and threats.

The framework is not presented as a new theoretical model. It does not introduce new constructs, indicators, or testable propositions. Rather, it integrates established concepts and strategic tools for the specific case of Vietnam. The academic contribution is therefore incremental and applied, while the practical contribution lies in clarifying the link between diagnosis and strategy. Similarly, the IFE and EFE matrices are used as decision-support instruments, not as direct empirical tests; their scores are interpreted as structured expert-based assessments of relative strategic priority.

2.4. Literature review

International studies show that GVCs are shifting from a cost-optimization model toward one that emphasizes supply-chain security, diversified production locations, and stronger adaptive and recovery capacity [1], [17], [18]. This shift has been accelerated by the COVID-19 pandemic, geopolitical tensions, trade restrictions, climate-related disruptions, and stricter sustainability requirements. As a result, firms and governments increasingly consider institutional reliability, logistics performance, data transparency, supplier redundancy, and compliance capacity when organizing production networks.

A common finding in recent studies is the transition from an absolutely lean supply-chain model to a balanced model combining efficiency and resilience. Ivanov and Dolgui [17] emphasize viability and survivability in intertwined supply networks, while recent studies highlight smart manufacturing and dynamic capabilities as mechanisms that help supply chains sense disruptions, reconfigure resources, and restore operations [19], [20]. These

arguments suggest that resilience is not a temporary emergency response, but a long-term capability embedded in production, logistics, technology, and governance systems.

Another strand of literature examines GVC restructuring through nearshoring, friendshoring, China+1 strategies, digitalization, and stronger ESG requirements [2], [12], [21], [23]. These trends create opportunities for Vietnam to attract production relocation, but they also raise the entry threshold for deeper GVC participation. Countries relying mainly on low labor costs and assembly may benefit in the short term, yet risk remaining in low-value-added positions if supplier capability, logistics quality, innovation capacity, and standards compliance are not improved.

In Vietnam, reports and policy studies emphasize advantages in trade openness, FDI attraction, macro-political stability, and participation in export sectors, while also identifying weaknesses in supporting industries, logistics costs, technological capability, skills quality, and linkages between domestic firms and the FDI sector [4], [5], [6], [13], [22]. Compared with broad country-level reports, including World Bank analyses of Vietnam's long-term development pathway [13], this paper has a narrower purpose: to operationalize GVC disruption into an integrated sequence of theoretical interpretation, strategic diagnosis, and policy-priority formulation for 2026-2035.

2.5. Research gap and proposed analytical framework

To avoid repetition with the Introduction, this subsection specifies the operational gap addressed by the study. Existing research provides valuable insights into GVC governance, supply-chain resilience, FDI attraction, supporting industries, logistics, and Vietnam's export performance. However, these strands are often treated separately. There remains a need for a framework that connects GVC restructuring trends, Vietnam's internal strengths and weaknesses, external opportunities and threats, and medium-term strategic priorities in a single, traceable analytical logic.

The proposed framework follows four steps: first, identify major disruption and restructuring trends in GVCs; second, assess their impacts on Vietnam's production, trade, logistics, and upgrading position; third, evaluate internal capabilities through the IFE matrix and external conditions through PESTEL and EFE analysis; and fourth, construct strategy groups through SWOT/TOWS logic. This sequence reduces the risk of presenting strategies as general policy statements detached from diagnosis.

The added value of the framework lies in analytical integration and policy traceability rather than theoretical originality. It helps explain why Vietnam should prioritize supporting industries, selective FDI attraction, logistics and digital infrastructure, standards compliance, supplier upgrading, and market diversification. The framework is most suitable for national-level strategic analysis; it does not replace sector-level econometric testing, firm-level surveys, or network simulation. Instead, it provides a structured starting point for identifying strategic priorities and guiding future empirical studies in electronics, textiles and garments, agro-processing, and logistics.

3. RESEARCH METHODOLOGY

3.1. Research design

The study adopts a qualitative, policy-oriented strategic-analysis design at the national level. Rather than testing causal hypotheses or estimating statistical relationships, it synthesizes secondary evidence, theoretical perspectives, and expert assessment to clarify the logic of global value chain (GVC) disruption, Vietnam's response capacity, and strategic policy priorities for 2026-2035. This design is appropriate because many national-level variables related to

resilience, upgrading, and policy coordination cannot yet be fully quantified.

To strengthen methodological clarity, the study separates three functions. Evidence synthesis identifies major disruption trends and their implications for Vietnam. Expert calibration supports the weighting and rating of strategic factors in the internal factor evaluation (IFE) and external factor evaluation (EFE) matrices. Strategy construction is then conducted through SWOT/TOWS matching. This separation prevents the IFE and EFE scores from being treated as direct empirical measurements; instead, they are used as decision-support inputs for policy analysis.

3.2. Data sources and criteria for source selection

The study draws mainly on secondary materials from OECD, UNCTAD, WTO, the World Bank, the General Statistics Office of Vietnam, the Ministry of Industry and Trade, and academic studies on GVCs, supply-chain resilience, logistics, international investment shifts, and Vietnam's industrial upgrading. Materials published during 2020-2025 are prioritized to reflect the post-COVID-19 restructuring context, while foundational works on GVCs, global production networks (GPNs), and supply-chain response capacity are retained for theoretical grounding.

Documents were selected according to five criteria: institutional reliability, relevance to GVC disruption or restructuring, explanatory value for the Vietnamese case, international comparability, and traceability of data or arguments. Commentary-based or opinion-based sources were not prioritized unless they could be cross-checked against official reports, reputable databases, or peer-reviewed studies.

For consistency, the evidence base was organized into three groups: macro-level evidence on trade, investment, logistics, and global production restructuring; Vietnam-specific evidence on exports, FDI, supporting industries, logistics capacity, and domestic firm linkages; and theoretical or empirical studies on GVC governance, GPNs, supply-chain resilience, risk governance, and strategic planning tools. Each factor used in the PESTEL, IFE, and EFE analyses was required to have documentary support, and where possible, more than one source type. This triangulation helps reduce dependence on the author's subjective interpretation or on a single policy report.

3.3. Expert method and strategic matrices

Structured expert consultation was used to support the assignment of weights and ratings in the IFE and EFE matrices. Experts were purposively selected from groups with knowledge of industry, logistics, international trade, economic integration, and policy analysis in Vietnam. Selection criteria included relevant professional experience, familiarity with the Vietnamese context, ability to assess medium- and long-term strategic risks, and willingness to participate in a structured assessment process.

The expert panel consisted of 15 experts, comprising four academic researchers in global value chains, international trade, and logistics; three policymakers or public-sector officials involved in industry, trade, or economic integration; four logistics and trade practitioners; and four representatives of manufacturing enterprises or supply-chain management units. All experts had at least 10 years of professional experience, direct familiarity with the Vietnamese context, and practical knowledge of supply-chain disruption, FDI linkages, logistics governance, or supporting-industry development. This composition was intended to balance academic, policy, and business perspectives while remaining appropriate for an exploratory, expert-informed strategic analysis rather than a statistically representative survey.

The consultation followed a Delphi-style process with two rounds. In the first round, experts reviewed the preliminary list of strengths, weaknesses, opportunities, and threats

derived from the literature and secondary data. Overlapping factors were merged, and factors without documentary support were removed or reworded. In the second round, experts assigned weights and ratings to the retained factors. Weights were normalized to total 1.00 in each matrix, while ratings were assigned on a 1-4 scale to reflect Vietnam's relative strategic position or response capacity.

Weighted scores were calculated as factor weight multiplied by rating. The total IFE/EFE score was interpreted against the conventional midpoint of 2.50: a score above 2.50 indicates a relatively favorable position, while a score below 2.50 suggests that weaknesses or threats outweigh the current response capacity. Because these scores are expert-based, they are interpreted as structured indicators of strategic priority rather than objective statistical findings.

To improve transparency, expert judgments should be checked through rating-dispersion comparison, review of factors with large scoring differences, and consistency assessment between final weights and documentary evidence. Where the expert dataset is available, agreement may be reported using a coefficient of variation or Kendall's coefficient of concordance. A sensitivity check should also be conducted by adjusting key factor weights within a reasonable range and examining whether major strategic priorities remain stable. This step limits the risk that conclusions depend excessively on subjective weighting.

3.4. Analytical procedure

The analytical procedure consists of four steps. First, literature and policy documents are synthesized to identify the main causes and trends of GVC disruption. Second, their impacts on Vietnam are assessed in relation to production, trade, logistics, domestic firm linkages, and value-chain position. Third, internal capabilities are evaluated through the IFE matrix, while the external environment is analyzed through PESTEL and EFE. Fourth, the findings are integrated through SWOT/TOWS matching to construct proactive strategies for 2026-2035.

A key requirement is traceability. Each proposed strategy must be linked to an explicit diagnostic basis: an internal strength to be leveraged, a weakness to be corrected, an opportunity to be captured, or a threat to be mitigated. Thus, the strategy groups are not derived only from aggregate IFE and EFE scores but from factor-level matching among strengths, weaknesses, opportunities, and threats.

The research logic is summarized in Figure 1, which shows the direction of inference from global disruption trends to Vietnam-specific impacts, then to internal and external assessment, SWOT/TOWS matching, and policy-priority groups. This procedure helps ensure that strategic recommendations are grounded in the preceding diagnosis rather than presented as general policy statements.

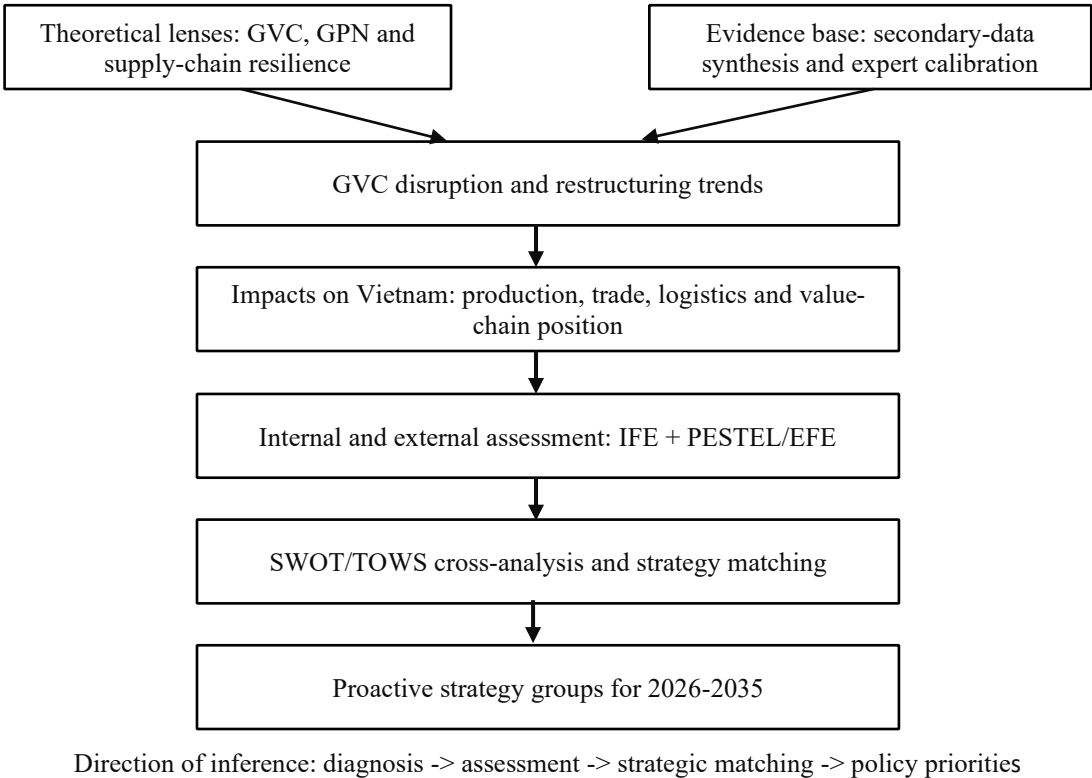


Figure 1. Research analytical framework

Source: Author’s synthesis and proposal, based on the adaptation and application of the strategic planning principles developed by [24] in Concepts of Strategic Management

This framework highlights that the study proceeds from diagnosis to assessment and then to strategic matching. Theoretical lenses such as GVC, GPN, and supply-chain resilience inform the interpretation of disruption and upgrading, while secondary evidence and expert calibration support the construction of strategic matrices. The final strategy groups are therefore expected to be traceable to the preceding analytical layers rather than presented as general policy recommendations.

The methodological scope of the study should also be clearly recognized. Because the research relies mainly on secondary data and expert-based strategic analysis, its findings are most suitable for broad policy orientation and priority setting. The framework does not provide causal estimates, sector-specific simulations, or firm-level statistical testing. Future studies can extend this framework by using enterprise survey data, trade-network data, or scenario simulation to test the vulnerability and resilience of specific industries.

4. RESULTS AND DISCUSSION

4.1. Trends in disruption and restructuring of global value chains

The synthesis results indicate that current global value chain (GVC) disruptions are not isolated operational accidents but cumulative outcomes of overlapping systemic shocks. The COVID-19 pandemic exposed the fragility of lean and geographically concentrated supply networks; geopolitical tensions and trade restrictions have increased uncertainty in technology-intensive sectors; climate risks and energy volatility have raised the cost of maintaining stable flows of inputs and logistics services; and environmental, social and governance (ESG) requirements have transformed compliance capacity into a new condition

for market access [1], [2], [10], [12].

These shifts show that the logic of GVC organization is moving from a narrow cost-minimization model toward a model that balances efficiency, security, flexibility, traceability, and supply-chain resilience. Trends such as China+1, nearshoring, friend-shoring, selective localization, digitalized coordination, and green supply-chain governance do not eliminate globalization; rather, they reorganize it through more diversified and risk-sensitive production networks [3], [21], [23].

For Vietnam, this restructuring creates a dual effect. It opens opportunities to attract relocated investment, expand export capacity, and participate more deeply in regional production networks. At the same time, it raises the threshold for participation because lead firms increasingly require reliable logistics, verified origin, ESG compliance, digital traceability, and domestic supplier capability. Therefore, the strategic question is not only how Vietnam can capture the relocation wave, but also how the country can avoid remaining in low-value assembly functions while strengthening its capacity to absorb and recover from external shocks.

Table 1. Linkages among GVC restructuring trends, impacts on Vietnam, and policy implications

International trend	Key impact on Vietnam	Risk/capability gap	Policy implication	Evidence base
China+1 and friend-shoring	Creates opportunities to attract relocated investment in electronics, mechanical engineering, textiles, footwear, and supporting industries.	Risk of attracting mainly assembly stages if domestic supplier linkages remain weak.	Prioritize selective FDI, supplier-development programs, and domestic tier-1/tier-2 supplier upgrading.	World Bank [3], [13]; UNCTAD [12]; WTO [23]
ESG standards and traceability	Raises participation requirements in textiles, footwear, agro-processing, and export manufacturing.	Small and medium-sized firms face high compliance costs and weak data-management capacity.	Support green credit, traceability platforms, standards training, and verified compliance systems.	OECD [2]; UNCTAD [12]; WTO [23]
Supply-chain digitalization	Increases the need for real-time data, demand forecasting, inventory visibility, and logistics coordination.	Digital gaps between FDI firms and domestic firms reduce integration capacity.	Promote ERP, TMS, WMS, shared logistics data, and digital skills for domestic suppliers.	OECD [2]; Bai et al. [19]; Kaneberg et al. [20]
Geopolitical fragmentation and logistics risks	Raises transport, insurance, input-sourcing, and market-access uncertainty.	Dependence on limited markets and strategic inputs increases vulnerability.	Diversify markets and input sources, build selective reserves, and upgrade seaports and multimodal transport.	OECD [21]; WTO [23]; MOIT [22]

Source: Author's synthesis from OECD (2023, 2025), UNCTAD (2024), World Bank (2020, 2024), WTO (2025), and Ministry of Industry and Trade reports

4.2. Impacts on Vietnam and its response capacity

GVC disruptions affect Vietnam through both vulnerability and opportunity channels. On the vulnerability side, the economy remains exposed to input shortages, logistics congestion, rising transport costs, order volatility, and stricter technical barriers in export markets. These risks are especially significant in sectors that depend heavily on imported components or materials, including electronics, textiles and garments, footwear, machinery, and several agro-processing segments. On the opportunity side, the diversification of production locations and the search for alternative manufacturing bases create room for Vietnam to attract new investment and deepen its role in regional value chains [5], [13].

The internal assessment suggests that Vietnam has a relatively favorable foundation for GVC participation, including strategic geography, strong integration through free trade agreements, macro-political stability, FDI attraction capacity, and production flexibility. However, these strengths are constrained by structural weaknesses: dependence on imported inputs, low domestic value added, weak supporting industries, limited technological innovation, uneven logistics infrastructure, and incomplete linkages between domestic firms and foreign-invested enterprises. This combination explains why Vietnam can benefit from GVC restructuring but cannot automatically convert participation into resilience or upgrading.

Table 2. IFE matrix of Vietnam's internal capacity to respond to global value chain disruptions

Internal factor	Weight	Rating	Weighted score	Source/evidence base
I. Strengths				
1) Strategic geographic location	0.08	4	0.32	World Bank [13]; MOIT [22]
2) FDI attraction capacity	0.09	4	0.36	UNCTAD [12]; World Bank [13]
3) Deep international economic integration	0.08	4	0.32	WTO [23]; MOIT [5]
4) Political and macroeconomic stability	0.08	4	0.32	World Bank [13]; GSO [6]
5) Labor cost and production flexibility	0.08	3	0.24	World Bank [13]
6) Stable agricultural exports	0.07	3	0.21	MOIT [5]; GSO [6]
7) Young workforce and quick adaptation	0.07	3	0.21	World Bank [13]
II. Weaknesses				
8) Dependence on imported materials	0.09	2	0.18	MOIT [5]; World Bank [13]
9) Low domestic value added	0.09	2	0.18	World Bank [3], [13]
10) Weak supporting industries	0.08	2	0.16	World Bank [4], [13]
11) Limited logistics infrastructure	0.07	2	0.14	MOIT [22]; OECD [2]
12) Weak technology and innovation capacity	0.06	2	0.12	World Bank [13]; Bai et al. [19]
13) Human resource quality remains uneven	0.06	2	0.12	World Bank [13]
Total	1.00	-	2.88	Calculated from expert-calibrated weights and ratings

Source: Author's calculation based on secondary-source synthesis and structured expert calibration. Weights sum to 1.00; ratings range from 1 to 4

The total IFE score is 2.88, above the conventional midpoint of 2.50. This result should be interpreted cautiously as a structured expert-based assessment rather than a new empirical estimate. It indicates that Vietnam has a fairly strong internal foundation for participating in GVC restructuring, but the factor-level results also show that this foundation is not yet robust enough to ensure high resilience under prolonged or repeated disruptions.

The most important interpretation is therefore not the aggregate score itself but the contrast between high-rated strengths and persistent structural weaknesses. Strategic geography, FDI attraction, and integration capacity can help Vietnam capture relocation opportunities; however, dependence on imported materials, weak supporting industries, and low domestic value added may prevent the economy from moving toward higher-value and more resilient positions. This diagnosis provides the basis for prioritizing domestic supplier development, localization in selected critical inputs, technology upgrading, and logistics governance in the subsequent strategy section.

4.3. Vietnam's strategic opportunities and challenges in the international environment

The external environment is analyzed through the PESTEL lens in order to identify political, economic, social, technological, environmental, and legal forces that shape Vietnam's GVC position. The analysis shows that Vietnam faces a "window of opportunity" generated by investment relocation, market diversification, digital transformation, and demand for reliable production bases. However, the same environment also intensifies pressure from geopolitical fragmentation, competition for high-quality FDI, green standards, non-tariff barriers, and technology gaps.

Table 3. PESTEL summary of opportunity factors for Vietnam

PESTEL factor	Key trend	Impact on GVCs	Opportunity for Vietnam	Source/evidence base
Political	Geopolitical tensions and supply-chain diversification	Production networks become more regionally diversified.	Attract relocated investment under China+1 and friend-shoring strategies.	OECD [21]; UNCTAD [12]
Economic	FDI restructuring and recovery in global demand	Capital flows seek stable and competitive production bases.	Expand exports and attract higher-quality FDI.	UNCTAD [12]; World Bank [13]
Social	Green consumption and food-security concerns	Demand shifts toward safe, traceable, and quality-certified products.	Upgrade agricultural and food-processing value chains.	WTO [23]; MOIT [5]
Technological	Digital transformation and automation	Supply chains require real-time data, traceability, and flexible production.	Modernize logistics, production management, and supplier coordination.	OECD [2]; Bai et al. [19]
Environmental	Climate pressure and ESG standards	Sustainability becomes a condition for GVC participation.	Develop sustainable production and green logistics capabilities.	OECD [2]; UNCTAD [12]
Legal	New-generation FTAs and international standards	Rules of origin and compliance systems become more important.	Expand market access and deepen institutional integration.	WTO [23]; MOIT [5]

Source: Author's synthesis from OECD, UNCTAD, WTO, World Bank, and Vietnam's import-export and logistics reports

Table 4. PESTEL summary of challenge factors for Vietnam

PESTEL factor	Key trend	Challenge for Vietnam	Strategic implication	Source/evidence base
Political	Geopolitical tensions and protectionism	Higher risk of supply interruptions and policy uncertainty.	Diversify partners and build sector-specific risk scenarios.	OECD [21]; WTO [23]
Economic	Competition for FDI and risk of low-value lock-in	Difficulty upgrading from assembly to higher-value functions.	Shift from quantity-based to quality-based FDI attraction.	World Bank [13]; UNCTAD [12]
Social	Rising expectations for product quality and responsibility	Domestic firms face stronger requirements from lead firms and consumers.	Strengthen standards support and supplier-management capacity.	WTO [23]
Technological	Rapid digitalization and automation	Technology dependence and capability gaps may widen.	Invest in digital skills, data infrastructure, and innovation linkages.	Bai et al. [19]; Kaneberg et al. [20]
Environmental	Climate risks and ESG compliance	Compliance costs and production risks increase, especially for SMEs.	Promote green finance, traceability, and sustainable logistics.	OECD [2]; UNCTAD [12]
Legal	Stricter rules of origin and non-tariff measures	Market access depends increasingly on compliance capacity.	Improve certification, customs modernization, and rule-of-origin support.	WTO [23]; MOIT [5]

Source: Author's synthesis from policy reports and academic studies cited in the manuscript

The opportunity and challenge factors should be read together rather than separately. For example, ESG requirements create market-access challenges but also open opportunities for firms capable of green upgrading. Similarly, digital transformation increases pressure on domestic firms, but it can also improve forecasting, logistics coordination, and traceability. This dual character of external factors explains why Vietnam's strategy must combine opportunity capture with capability building.

Table 5. EFE matrix of Vietnam's response in the context of GVC disruptions

External factor	Weight	Rating	Weighted response score
I. Opportunities			
1) Restructuring of global FDI flows	0.10	3	0.30
2) Diversification of trade partners	0.08	3	0.24
3) Demand for agricultural products and food security	0.08	3	0.24
4) Multipolarization of global value chains	0.10	3	0.30
5) Recovery in global consumer demand	0.08	3	0.24
6) Development of supporting industries	0.07	2	0.14
7) Digital transformation and supply-chain modernization	0.07	2	0.14
II. Threats			
8) Low value-added trap	0.10	2	0.20
9) Competition for FDI attraction and GVC participation	0.09	2	0.18

External factor	Weight	Rating	Weighted response score
10) Stringent international and ESG standards	0.08	2	0.16
11) Risk of widespread supply-chain disruptions	0.08	2	0.16
12) Internal constraints and supply-chain governance	0.07	2	0.14
Total	1.00	-	2.44

Source: Author's calculation based on PESTEL synthesis and structured expert calibration. Weights sum to 1.00; ratings range from 1 to 4

The total EFE score is 2.44, slightly below the midpoint of 2.50. This suggests that Vietnam's current response to the external environment is not yet commensurate with the speed and complexity of GVC restructuring. However, the score should not be used as the sole basis for strategy selection. Its main analytical value lies in showing that external opportunities are real, while Vietnam's ability to convert them into durable advantages remains constrained by compliance capacity, logistics readiness, technological capability, and domestic supplier linkages.

A sensitivity check was conducted by adjusting the relative emphasis placed on strengths/opportunities and weaknesses/threats while keeping the total weights normalized at 1.00. When the weights of internal weaknesses are increased by 10%, the IFE score declines from 2.88 to approximately 2.81 but remains above 2.50. When the weights of internal strengths are increased by 10%, the score rises to about 2.97. For the EFE matrix, increasing opportunity weights by 10% raises the score from 2.44 to approximately 2.48, while increasing threat weights by 10% lowers it to about 2.41. These results indicate that the internal diagnosis is relatively stable, whereas the external diagnosis is more sensitive and remains close to the threshold. Therefore, the strategic conclusions should be drawn from factor-level TOWS matching rather than from aggregate scores alone.

4.4. Vietnam's proactive strategic system for 2026-2035

Based on the IFE, EFE, PESTEL, and SWOT/TOWS analyses, Vietnam's proactive strategy for 2026-2035 should be organized around three linked objectives: enhancing selective strategic autonomy in critical inputs and capabilities, upgrading the quality of GVC participation, and strengthening national supply-chain resilience. The three strategy groups below are derived not from the aggregate IFE/EFE scores alone, but from explicit matching among strengths, weaknesses, opportunities, and threats.

Table 6. SWOT/TOWS traceability matrix for proposed strategy groups

TOWS logic	Main matched factors	Corresponding strategy group	Policy priority
SO: use strengths to capture opportunities	S1 geographic location; S2 FDI attraction; S3 integration; O1 FDI restructuring; O4 multipolar GVCs	Growth- and competitiveness-leveraging strategies	Selective FDI attraction, logistics-hub development, and regional production-network integration.
WO: overcome weaknesses by using opportunities	W1 imported-input dependence; W2 low value added; W3 weak supporting industries; O6 supporting-industry development; O7 digital modernization	Core strategies	Domestic supplier upgrading, selective localization, technology transfer, and digital supplier-linkage platforms.
ST: use strengths to	S3 integration; S4 stability; S5 production flexibility; T2 FDI	Stabilization-supporting	Market diversification, standards compliance, supply-

mitigate threats	competition; T3 ESG standards; T4 disruption risks	strategies	source diversification, and strategic reserves.
WT: reduce weaknesses and avoid threats	W4 logistics constraints; W5 weak innovation; W6 uneven human resources; T1 geopolitical risks; T5 governance constraints	Cross-cutting resilience measures	Improve logistics governance, human capital, innovation capability, and inter-ministerial coordination mechanisms.

Source: Author's synthesis based on the IFE, EFE, PESTEL, and SWOT/TOWS analyses

4.4.1. Core strategy group

The first core strategy is to develop supporting industries and selectively increase localization in sectors with strong spillover effects, including electronics, mechanical engineering, textiles and garments, footwear, and agro-processing. This strategy addresses imported-input dependence, low domestic value added, and weak domestic supplier capacity. It should be understood not as broad import substitution, but as selective capability building focused on critical inputs, supplier qualification, and stronger linkages between foreign-invested enterprises and domestic firms.

The second strategy is to upgrade Vietnam's position in GVCs by moving gradually from processing and assembly toward higher value-added functions such as design support, testing, component manufacturing, branding, standards management, logistics services, and post-production services. Upgrading therefore means improving the quality and domestic value content of participation, rather than merely expanding export volume.

The third strategy is to strengthen national supply-chain resilience through diversified input sources, sector-specific risk scenarios, selective reserves for essential materials, real-time supply-chain information systems, and coordination mechanisms among industry, trade, logistics, customs, and local authorities. These measures respond to the finding that Vietnam has a solid internal foundation but remains vulnerable to repeated external disruptions.

4.4.2. Growth- and competitiveness-leveraging strategy group

The leveraging strategy group begins with logistics infrastructure and supply-chain governance. Upgrading seaports, dry ports, inland logistics centers, multimodal transport, customs digitalization, and shared logistics data is essential not only for cost reduction but also for faster response when disruptions occur. Logistics infrastructure should therefore be treated as part of national resilience capacity.

A second strategy is to shift from quantity-based FDI attraction to selective FDI attraction. Priority should be given to projects that bring advanced technology, supplier-development commitments, workforce training, research and development linkages, and measurable spillovers to domestic firms. Without this selectivity, Vietnam may continue to expand exports while remaining locked into low-value or weakly connected stages of GVCs.

A third strategy is supply-chain digital transformation. Enterprise resource planning, transport and warehouse management systems, traceability platforms, artificial intelligence-based forecasting, and shared data mechanisms can improve visibility, coordination, and risk monitoring. Digital transformation is therefore both a competitiveness tool and a resilience tool because it enables firms and policymakers to detect disruptions earlier and coordinate responses more effectively [19], [20].

4.4.3. Strategy group supporting stability and expanding development space

The supporting strategy group aims to reduce excessive external dependence and expand Vietnam's room for strategic adjustment. This includes diversifying export markets, input sources, logistics routes, and investment partners; improving the use of new-generation free

trade agreements; and strengthening the domestic market as a buffer against external volatility. These measures are especially relevant because external opportunities are accompanied by significant threats.

Vietnam should also become a reliable regional production node rather than a temporary relocation destination. This requires specialized industrial clusters, stronger regional linkages, coordinated investment in logistics and human resources, and closer alignment between FDI attraction and domestic enterprise development. The objective is to embed Vietnam more deeply in regional production networks while increasing the domestic capability content of that participation.

Compliance capacity must also be treated as a strategic asset. Rules of origin, ESG standards, technical requirements, and traceability demands now determine whether domestic firms can remain qualified suppliers in global networks. The state should therefore support standards infrastructure, certification services, green finance, digital traceability, and advisory services for small and medium-sized enterprises.

4.5. Discussion

The findings confirm that GVC disruption is a structural change in global production rather than a temporary logistics problem. This is consistent with GVC and GPN perspectives, which show that a country's position in production networks is shaped by firm capabilities, institutional arrangements, chain governance, and spatial organization [8], [16], [21]. For Vietnam, the strategic issue is not only deeper participation in GVCs, but participation that is more resilient, more value-creating, and less exposed to external shocks.

The contrast between the IFE score of 2.88 and the EFE score of 2.44 provides a useful but limited diagnostic signal. It suggests that Vietnam's internal foundation is stronger than its current capacity to respond to a volatile external environment. However, because the EFE score is close to the threshold, it should not be overstated. The more important result is the factor-level diagnosis: Vietnam's strengths can support opportunity capture, but weaknesses in supporting industries, technology, logistics, and governance may prevent those opportunities from becoming long-term upgrading advantages.

The TOWS traceability matrix helps address the concern that the strategy groups might appear generic. Core strategies correct internal bottlenecks that limit upgrading; leveraging strategies use existing strengths to capture restructuring opportunities; and stabilization-supporting strategies mitigate external threats and expand strategic flexibility. This mapping strengthens the logical chain from diagnosis to strategy.

Academically, the study's contribution is incremental and applied. It does not propose new theoretical constructs, indicators, or a universal model of GVC resilience. Rather, it shows how GVC, GPN, and supply-chain resilience perspectives can be combined with strategic planning tools for national-level policy analysis. From a policy perspective, the findings imply that Vietnam must balance efficiency and security. Supplier diversification, selective localization, strategic reserves, ESG compliance, and digital traceability may increase short-term costs, but they reduce exposure to low-probability, high-impact shocks.

The study has three limitations. First, the IFE and EFE matrices are based on secondary evidence and expert judgment, so their scores should be interpreted as structured assessments rather than objective empirical measurements. Second, the analysis is conducted at the national level and does not quantify sector- or firm-level vulnerability. Third, the strategic recommendations remain broad policy orientations and require further testing through sector-specific data, firm-level surveys, trade-network analysis, or scenario simulation.

5. CONCLUSION

This paper examined Vietnam's proactive response strategy to GVC disruptions for the 2026-2035 period. The analysis shows that these disruptions are systemic changes in production, investment, standards, and supply-chain governance. Vietnam benefits from geographic advantages, deep integration, macroeconomic stability, and FDI attraction capacity, but these advantages are constrained by imported-input dependence, low domestic value added, weak supporting industries, uneven logistics capacity, and limited technological upgrading.

The main finding is that Vietnam has a relatively favorable internal foundation, reflected in the IFE score of 2.88, while its response to the external environment remains less secure, reflected in the EFE score of 2.44. These scores are treated as expert-based decision-support signals rather than independent empirical measurements. The central issue is the strategic mismatch between Vietnam's participation potential and the institutional, technological, logistics, and supplier-development capabilities needed to convert GVC restructuring into sustainable upgrading.

Based on the PESTEL, IFE, EFE, and SWOT/TOWS analyses, the study proposes three linked strategy groups: core strategies, growth- and competitiveness-leveraging strategies, and stabilization-supporting strategies. Core strategies focus on supporting industries, selective localization, GVC upgrading, and supply-chain resilience. Leveraging strategies emphasize logistics modernization, selective FDI attraction, and supply-chain digital transformation. Supporting strategies aim to diversify markets and partners, improve standards compliance, and expand Vietnam's strategic room for adjustment.

The contribution of the paper is modest and applied. It offers a policy-oriented analytical framework that integrates GVC theory, GPN perspectives, supply-chain resilience logic, and strategic-analysis tools into a traceable sequence from disruption diagnosis to strategic choice. Future research may extend this study by building sector-specific disruption indices, applying larger expert panels, comparing Vietnam with other developing economies, or combining trade data, firm-level surveys, and network simulation to test bottlenecks related to suppliers, logistics, green standards, and technological upgrading.

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