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Vietnam at the Crossroads: Strategies and Impacts of the US-China Technology Rivalry

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Abstract

The escalating technological rivalry between the United States and China has profoundly reshaped the global geopolitical and economic landscape, presenting both opportunities and challenges for smaller nations like Vietnam. Positioned strategically in Southeast Asia and deeply integrated into global value chains, Vietnam is uniquely placed to navigate this rivalry. This study adopts an interdisciplinary approach, integrating middle power theory and geo-economic analysis to examine Vietnam's strategic responses. By leveraging its geographic location, fostering foreign direct investment (FDI), and promoting regional cooperation, Vietnam has capitalized on opportunities for technological advancement and economic growth. However, the country also faces significant challenges, including dependency on foreign technologies, cybersecurity vulnerabilities, and geopolitical pressures from the polarized global environment. This paper highlights Vietnam's strategies to strengthen its technological capabilities, diversify supply chains, and enhance its influence within multilateral frameworks such as ASEAN and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP). The findings provide valuable insights into how Vietnam balances economic interests and national security while adapting to shifting global power dynamics. As the competition between the US and China continues to evolve, Vietnam's experience offers broader lessons for smaller nations navigating great power rivalries in the 21st century.

Keywords: US-China Technological Rivalry, Vietnam's Strategy, Foreign Direct Investment (FDI).

Introduction

The global economic and political landscape is increasingly defined by the intensifying technological rivalry between the United States and China. This competition, driven by the pursuit of dominance in critical sectors such as semiconductors, artificial intelligence (AI), and quantum computing, is not merely a battle over innovation but a strategic contest for economic supremacy and national security (Peng, 2024). The United States has implemented initiatives like the CHIPS Act to bolster its domestic semiconductor industry, while China's "Made in China 2025" strategy seeks to establish leadership in advanced technologies. This geopolitical rivalry has profound implications, not only for the two superpowers but also for smaller nations that must navigate the resultant opportunities and challenges (Horng, 2024; Kim & Verwey, 2019).

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Vietnam, with its strategic geographical location and growing integration into global value chains, stands at a critical juncture in this technological competition. Sharing a border with China and maintaining strong economic ties with both the United States and China, Vietnam is uniquely positioned to leverage this rivalry to its advantage. However, this positioning also exposes Vietnam to significant risks, including dependency on major powers, technological vulnerabilities, and geopolitical pressures (Grossman, 2020; Yen, 2022).

The existing literature has explored various dimensions of the US-China rivalry, focusing predominantly on the strategic objectives of the two superpowers. While Vietnam's role has been acknowledged, the analysis often lacks depth, failing to capture the complexity of its strategic responses. Studies have highlighted Vietnam's efforts to attract foreign direct investment and its increasing participation in global supply chains, but there is limited examination of the country's domestic policies, its role in regional multilateral frameworks, and its ability to balance relationships with both superpowers.

This study aims to address these gaps by adopting a multi-dimensional approach to analyze Vietnam's strategic responses to the US-China technological rivalry. By integrating middle power theory and geo-economic analysis, the paper examines how Vietnam navigates this complex geopolitical environment while safeguarding its sovereignty and advancing its economic and technological goals. It explores Vietnam's strategies to attract high-tech FDI, diversify trade partnerships, and foster domestic innovation, as well as its role in promoting regional stability through multilateral cooperation.

The findings of this study contribute to the broader discourse on how smaller nations can strategically position themselves amid great power competition. Vietnam's experience offers valuable lessons for other countries seeking to balance economic growth, technological advancement, and national security in an increasingly polarized global order.

Theoretical Framework

Vietnam's strategic responses to the US-China technological rivalry require a robust and multi-dimensional theoretical foundation to fully understand the complexities and implications of its position. This paper employs two complementary frameworks—middle power theory (Efsthathopoulos, 2015; Vuong & Tho, 2023) and geo-economic analysis (Sparke, 2017)—to provide a comprehensive lens for analyzing Vietnam's strategies. These frameworks not only highlight Vietnam's geopolitical significance but also elucidate the economic instruments underpinning its strategic positioning in the global landscape.

Middle power theory provides a valuable perspective for understanding Vietnam's ability to navigate the intricate dynamics of great power competition. Middle powers are defined not by their size or population but by their ability to influence global affairs through coalition-building, norm-shaping, and diplomatic agility (Cooper, 1997; Jordaan, 2003). Vietnam's strategic geographical location—sharing a border with China and positioned at the heart of Southeast Asia—affords it significant leverage in regional and international affairs (Thuong & Oanh, 2021).

Vietnam exemplifies middle power behavior through its active engagement in multilateral platforms such as ASEAN, where it has consistently promoted regional stability and economic integration. For instance, Vietnam has played a leading role in advancing ASEAN's Digital Masterplan 2025, fostering technological development and cooperation among member states (ASEAN, 2021b; USAID, 2021). Additionally, Vietnam's ability to mediate tensions,

particularly in the South China Sea, demonstrates its capacity to influence regional norms and uphold a rules-based international order.

Middle power theory also underscores Vietnam's potential to amplify its influence through strategic partnerships. By balancing its relationships with the United States and China, Vietnam has avoided overt alignment with either power while maximizing the benefits of both. This nuanced approach allows Vietnam to leverage its middle power status to protect its sovereignty, promote economic development, and contribute to global governance in areas such as trade, technology, and environmental sustainability (Dung, 2022).

Geo-economic analysis complements middle power theory by emphasizing the strategic use of economic tools to achieve geopolitical objectives. Vietnam's economic strategies are pivotal in mitigating the risks and capitalizing on the opportunities presented by the US-China technological rivalry. Geo-economic analysis highlights three critical dimensions of Vietnam's approach:

Foreign Direct Investment (FDI): Vietnam's success in attracting high-tech FDI reflects its strategic positioning as a manufacturing and innovation hub. Major corporations such as Apple, Samsung, and Intel have expanded their operations in Vietnam to diversify supply chains and reduce dependence on China (Reuters, 2024; Sharma, 2024). These investments not only generate economic growth but also facilitate technology transfer, skill development, and integration into global value chains.

Supply Chain Diversification: The fragmentation of global supply chains due to the US-China rivalry has provided Vietnam with an opportunity to strengthen its role in high-value manufacturing. By positioning itself as a reliable alternative to China, Vietnam has attracted significant investments in electronics, semiconductors, and renewable energy (Alfaro & Chor, 2023). This diversification enhances Vietnam's economic resilience and reduces its vulnerability to external shocks.

Infrastructure and Innovation: Vietnam has prioritized investments in technological infrastructure, including 5G networks, smart cities, and renewable energy projects. These initiatives align with geo-economic principles by improving connectivity, enhancing productivity, and fostering long-term economic security (Nokia, 2024; Richard, 2022). By integrating digital technologies into key sectors, Vietnam is laying the foundation for sustained competitiveness in a technology-driven global economy.

The integration of middle power theory and geo-economic analysis offers a comprehensive understanding of Vietnam's strategic responses. While middle power theory highlights Vietnam's diplomatic and coalition-building capabilities, geo-economic analysis underscores the economic tools that reinforce these efforts. Together, these frameworks provide insights into how Vietnam navigates great power competition while safeguarding its sovereignty and advancing its development goals.

This interdisciplinary approach not only captures the complexity of Vietnam's position in the US-China technological rivalry but also contributes to the broader discourse on how smaller nations can strategically adapt to a polarized and volatile global environment. By leveraging its middle power status and geo-economic strengths, Vietnam has the potential to emerge as a dynamic and resilient player in the evolving global order.

Methodology

This study employs a qualitative research methodology designed to provide a comprehensive and nuanced understanding of Vietnam's strategic responses to the US-China technological rivalry. The approach integrates multiple data sources and analytical techniques, ensuring the robustness and reliability of findings while addressing the complexities inherent in this multifaceted issue.

The study is structured around an exploratory research design, which is well-suited for examining emerging phenomena in a dynamic global context. By adopting an interdisciplinary approach, the research combines theoretical analysis with empirical case studies to capture the interplay between Vietnam's economic, political, and technological strategies. Middle power theory and geo-economic analysis serve as the guiding frameworks for data collection and interpretation, enabling a holistic examination of Vietnam's position within the global landscape.

The research draws upon secondary data from diverse and credible sources, including peer-reviewed journal articles, government policy documents, industry reports, and trade data from international organizations such as the World Bank, OECD, and ASEAN. This comprehensive dataset ensures a robust foundation for analysis and addresses potential biases associated with single-source studies.

In addition to quantitative trade and investment data, qualitative insights were extracted from case studies of Vietnam's engagement with multinational corporations such as Samsung, Apple, and Intel. These case studies illustrate Vietnam's success in attracting foreign direct investment and integrating into global value chains. The study also incorporates regional and international agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP), to assess Vietnam's role in multilateral trade and technology governance.

Thematic analysis was employed to identify recurring patterns and themes related to Vietnam's strategies for navigating the US-China rivalry. This method enables the systematic examination of Vietnam's economic policies, technological initiatives, and diplomatic engagements. Themes such as FDI attraction, supply chain diversification, and regional cooperation were analyzed to uncover the underlying drivers of Vietnam's strategic positioning.

To complement the thematic analysis, a comparative approach was used to benchmark Vietnam's strategies against those of other emerging economies in Southeast Asia, such as Indonesia and Malaysia. This comparison highlights Vietnam's competitive advantages and identifies areas for improvement in its policy framework (W. Bank, 2024; OECD, 2019).

Recognizing the inherent challenges of relying solely on secondary data, the study adopted a triangulation approach to enhance the validity and reliability of findings. Data from multiple sources were cross-referenced to ensure consistency and accuracy. While primary data collection through interviews with policymakers and industry stakeholders was not feasible due to time constraints, the integration of diverse secondary sources mitigates this limitation.

Additionally, potential biases associated with the interpretation of trade and investment data were addressed through the inclusion of longitudinal trends, allowing for a more dynamic understanding of Vietnam's economic trajectory. Future studies could further enrich the findings by incorporating primary data through fieldwork and stakeholder interviews.

The study adhered to ethical standards in academic research, ensuring the integrity and transparency of data usage. All secondary sources were cited appropriately, and care was taken to avoid misrepresentation or overgeneralization of findings. The research also respects the confidentiality of proprietary information in publicly available reports.

The US-China Technology Rivalry

The US-China technological rivalry has profound and far-reaching implications for global dynamics, reshaping trade networks, altering supply chains, and influencing the geopolitical landscape. This competition not only defines the technological trajectories of the two superpowers but also forces other nations to navigate the evolving global order with strategic foresight.

The rivalry has accelerated the fragmentation of global supply chains, as both the United States and China seek to reduce interdependence in critical industries. The United States has prioritized the creation of alternative supply chains through alliances with trusted partners, particularly in semiconductors and advanced technologies. Programs such as the CHIPS Act and export controls on critical technologies reflect these efforts, aiming to decouple key sectors from China's manufacturing dominance (Congress, 2023). Concurrently, China has strengthened its domestic capacity and expanded its Belt and Road Initiative (BRI) to maintain influence over global supply chains, particularly in emerging markets (Bank, 2018; Bhattacharya et al., 2019).

For other nations, this fragmentation presents both challenges and opportunities. Countries like Vietnam, India, and Malaysia are emerging as critical players in the diversification of production networks. Vietnam, for instance, has capitalized on this shift by attracting high-tech foreign direct investment from global corporations looking to relocate manufacturing operations and mitigate risks associated with overreliance on China (Giang et al., 2024; Xuan, 2020).

The competition between the United States and China extends beyond economics to include the establishment of global technology standards. The United States, alongside its allies, advocates for governance frameworks that prioritize transparency, cybersecurity, and ethical AI development. In contrast, China promotes alternative standards, often tied to its domestic priorities and geopolitical strategies, particularly in areas like 5G, digital infrastructure, and AI ethics (Rossini, Cifone, Kassem, Costa, & Portioli-Staudacher, 2021; Vázquez Rojo & Visintin, 2024; Wu & Rajnai, 2024).

This polarization has divided the global technology ecosystem into competing spheres of influence. Smaller nations face difficult decisions about aligning with one system or attempting to bridge the gap between both. Vietnam's pragmatic approach—engaging with both US- and China-led systems—underscores the strategic importance of middle powers in fostering interoperability and reducing global fragmentation (Lan, 2024).

The US-China rivalry has heightened geopolitical tensions, particularly in regions with strategic significance, such as Southeast Asia. The South China Sea, a vital trade route and energy corridor, remains a focal point of contention, with both powers vying for influence. For countries like Vietnam, these tensions create a precarious balancing act: leveraging economic opportunities while safeguarding sovereignty and territorial integrity (Pongsudhirak, 2017; Vo, Nguyen, Tran, & Bui, 2023).

Simultaneously, the rivalry has disrupted multilateral governance structures. Organizations such as the World Trade Organization (WTO) and ASEAN have been challenged to adapt to the

shifting power dynamics, highlighting the need for reforms to maintain their relevance and efficacy in mediating conflicts and promoting cooperation (Norbert Gaillard, Gotoh, & Michalek, 2024; Runde & Hardman, 2024).

Amid the turbulence, the US-China rivalry has also created openings for enhanced regional cooperation. Multilateral frameworks such as ASEAN, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership, and the Regional Comprehensive Economic Partnership provide platforms for smaller nations to collectively address shared challenges and promote sustainable development (Park, Petri, & Plummer, 2021; Tobing & Aristama, 2023). Vietnam's leadership within ASEAN, particularly in advancing digital transformation and regional stability, exemplifies how smaller nations can shape the global dialogue in this competitive era (Desierto, 2018).

The implications of the US-China technological rivalry extend well beyond the two superpowers, reshaping the global economic and political order. The fragmentation of supply chains, polarization of technological standards, and intensification of geopolitical tensions present significant challenges for smaller nations. However, these dynamics also offer opportunities for countries like Vietnam to assert their influence, foster regional cooperation, and position themselves as indispensable players in the evolving global landscape. Understanding and navigating these implications is crucial for building resilience and ensuring sustainable development in an increasingly polarized world.

Impacts on Vietnam

Opportunities

The intensifying technological rivalry between the United States and China has presented Vietnam with significant opportunities to enhance its economic position, technological capabilities, and geopolitical influence. By strategically leveraging its geographic location, economic policies, and diplomatic engagements, Vietnam is poised to capitalize on the shifts in global trade and technology landscapes.

One of the most prominent opportunities arising from the US-China rivalry is Vietnam's integration into diversified global supply chains. The relocation of manufacturing operations by multinational corporations seeking alternatives to China has positioned Vietnam as a preferred destination for foreign direct investment. Companies such as Apple, Samsung, and Foxconn have expanded their operations in Vietnam, drawn by its competitive labor costs, improving infrastructure, and favorable investment policies (Kwon, 2022; C. Zhang & Yilmaz, 2023). This influx of FDI not only bolsters Vietnam's economic growth but also facilitates technology transfer and knowledge spillovers, enhancing local innovation ecosystems.

By strengthening its role as a key node in global supply chains, particularly in electronics, semiconductors, and renewable energy, Vietnam is reducing its dependence on traditional export markets and diversifying its economic partnerships. This diversification enhances Vietnam's resilience against external shocks and geopolitical disruptions (D. Linh, 2021; VNA, 2024).

The competition between the United States and China has created opportunities for Vietnam to advance its technological capabilities. Vietnam's strategic engagement with both superpowers has enabled access to cutting-edge technologies and expertise. For example, partnerships with US-based firms have provided Vietnam with advanced manufacturing technologies and digital tools, while collaborations with Chinese entities have facilitated infrastructure development and

Moreover, Vietnam's active participation in regional and global technology initiatives, such as ASEAN's Digital Masterplan 2025, positions it as a leader in driving digital transformation across Southeast Asia. The government's focus on fostering innovation through public-private partnerships, R&D investments, and the establishment of high-tech parks has further reinforced Vietnam's status as a hub for technological progress (H. Linh, 2024; TTXVN/Vietnam+, 2024).

Vietnam's leadership within ASEAN and its engagement in multilateral trade agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and the Regional Comprehensive Economic Partnership, have created new avenues for economic growth and collaboration. These platforms provide Vietnam with access to broader markets, foster technology sharing, and enhance its influence in shaping regional trade and technology policies (Park et al., 2021; Phuong, 2024).

Additionally, Vietnam's ability to act as a mediator between competing global technological standards underscores its strategic importance. By balancing its relationships with the United States and China while aligning with ASEAN's collective priorities, Vietnam is well-positioned to bridge divides and promote interoperability in global technology systems (L. T. Binh, 2022; Vershinina, 2020).

The US-China technological rivalry, while presenting numerous challenges, has opened unprecedented opportunities for Vietnam to accelerate its economic transformation and solidify its role in the global technology and trade ecosystems. By integrating into diversified supply chains, advancing technological innovation, fostering regional influence, and embracing renewable energy, Vietnam is positioning itself as a resilient and dynamic player in the 21st-century global landscape.

Challenges

While the US-China technological rivalry offers significant opportunities for Vietnam, it also poses substantial challenges that threaten to undermine its economic stability, technological development, and strategic autonomy. These challenges span multiple dimensions, including economic vulnerabilities, technological dependencies, and geopolitical complexities, all of which require careful and proactive management.

One of the most pressing challenges for Vietnam is heightened competition in global markets. As multinational corporations diversify their supply chains away from China, other emerging economies, such as India, Indonesia, and Malaysia, are also vying for foreign direct investment in high-tech sectors. This competitive pressure risks diluting Vietnam's comparative advantages, such as cost-effective labor and favorable investment policies (Minh, 2024). Furthermore, global overproduction in certain industries, particularly electronics and consumer goods, driven by China's manufacturing capabilities, could saturate export markets. This dynamic puts downward pressure on Vietnam's export prices and profitability, threatening its ability to sustain long-term economic growth (Boullenois, Kratz, & Rosen, 2024; Nguyen, 2023).

Vietnam's reliance on imported technologies, particularly from China, poses significant risks to its technological sovereignty. While foreign partnerships have facilitated access to advanced technologies, they have also created a dependency that limits Vietnam's ability to innovate independently. This challenge is particularly acute in critical industries such as semiconductors, telecommunications, and renewable energy, where domestic capacity remains underdeveloped.

Moreover, there is a risk of technological dumping, where older or less advanced technologies are offloaded into Vietnam's markets. This practice not only undermines the country's competitiveness but also hinders its transition to a knowledge-based economy (Dang, 2017; N. H. Tien, Hung, Vu, & Bien, 2020).

The integration of foreign technologies into critical infrastructure raises concerns about cybersecurity and national security. Dependence on foreign suppliers, especially for 5G networks, artificial intelligence, and other strategic technologies, increases Vietnam's exposure to potential espionage, data breaches, and system vulnerabilities (thông, 2022). Managing these risks requires robust cybersecurity frameworks, strict regulatory oversight, and diversified technology sourcing. However, balancing security considerations with economic and technological demands remains a complex and ongoing challenge for policymakers.

Navigating the geopolitical pressures of the US-China rivalry presents another significant challenge for Vietnam. The polarized global environment forces smaller nations like Vietnam to carefully balance their relationships with both superpowers. Aligning too closely with one side risks alienating the other, potentially leading to economic retaliation or diplomatic isolation (Son, 2023; Vu, Soong, & Nguyen, 2022). For instance, Vietnam's strategic cooperation with the United States on technological development could provoke tensions with China, its largest trading partner. Conversely, overdependence on Chinese investments and technologies could undermine Vietnam's efforts to diversify its partnerships and protect its strategic autonomy.

Vietnam's ability to fully capitalize on the opportunities presented by the US-China rivalry is hindered by domestic capacity constraints. Challenges such as limited investment in research and development (R&D), a skills gap in the labor force, and underdeveloped infrastructure in certain regions impede the country's progress in becoming a high-tech hub (T. Đ. Cường, 2025; Long, 2025). Additionally, the slow pace of regulatory reform and bureaucratic inefficiencies hinder the effective implementation of policies designed to attract high-tech investments and foster innovation. Addressing these structural weaknesses is critical for Vietnam to enhance its economic and technological resilience.

The challenges posed by the US-China technological rivalry are complex and multifaceted, requiring Vietnam to adopt a proactive and adaptive approach. Economic vulnerabilities, technological dependencies, national security risks, and geopolitical pressures demand comprehensive strategies that balance immediate needs with long-term goals. By addressing these challenges through investments in domestic innovation, workforce development, cybersecurity, and multilateral cooperation, Vietnam can safeguard its economic stability and maintain its strategic autonomy in an increasingly polarized global landscape.

To succinctly capture the multifaceted impacts of the US-China technology rivalry on Vietnam, Table 1 summarizes key opportunities and challenges across economic, technological, national security, and geopolitical dimensions. This overview provides a clearer understanding of the strategic considerations Vietnam must navigate as it seeks to maximize benefits while mitigating associated risks.

Dimensions	Opportunities	Challenges
Economic	- Attraction of high-tech Foreign Direct Investment (FDI) from major	- Heightened competition with other emerging economies (India,

Dimensions	Opportunities	Challenges
	corporations (Apple, Samsung, Foxconn). - Diversification of global supply chains and export markets. - Increased economic integration within regional frameworks (ASEAN, CPTPP, RCEP).	Indonesia, Malaysia) for high-tech FDI. - Market saturation risks due to excess production capacities, especially from China.
Technological	- Enhanced technology transfer opportunities from global firms. - Development of domestic technological capabilities (AI, semiconductors, renewable energy). - Accelerated digital transformation initiatives aligning with ASEAN's Digital Masterplan 2025.	- Dependence on imported technology, especially from China, threatening technological sovereignty. - Risk of technology dumping (lower-quality or outdated technologies entering Vietnam).
National Security	- Opportunities for diversifying technology sources, reducing dependence on a single provider, and enhancing strategic autonomy.	- Increased cybersecurity vulnerabilities and potential espionage risks associated with the integration of foreign technologies (particularly 5G, AI systems).
Geopolitical	- Enhanced regional influence through active leadership within ASEAN and broader regional cooperation frameworks (CPTPP, RCEP). - Positioning as a strategic intermediary capable of bridging US-China technological standards.	- Geopolitical pressures from balancing relations with both the US and China. - Potential risks of economic retaliation or diplomatic isolation if seen aligning closely with either superpower.

Table 1: Summary of Opportunities and Challenges for Vietnam from the US-China Technology Rivalry
(Source: Authors' synthesis based on analysis in section 5.)

Vietnam's Strategic Responses

In responding proactively to the shifting geopolitical and technological landscape driven by the US-China rivalry, Vietnam has adopted comprehensive strategies aimed at safeguarding its economic interests, ensuring technological sovereignty, and maintaining national security. Vietnam's approach spans three primary dimensions: economic policies, diplomatic balancing, and national security and infrastructure development.

To clearly illustrate these strategic choices, the table 2 below summarizes Vietnam's key responses:

Strategic Area	Specific Measures & Actions	Intended Outcomes and Impacts
Economic Policies	- Attraction of high-tech FDI (Samsung, Apple, Intel). - Development of specialized economic zones (Hoa Lac Hi-Tech Park, Saigon Hi-Tech Park). - Supply chain diversification (CPTPP, RCEP, EU-Vietnam FTA). - Investment in domestic innovation (semiconductors, AI, renewable energy).	- Strengthened economic resilience. - Reduced dependency on single markets. - Enhanced integration into global supply chains. - Increased domestic technological capacity.
Diplomatic Balancing	- Maintaining balanced relations with both the US and China. - Active participation in ASEAN-led initiatives (Digital Masterplan 2025). - Engagement in multilateral agreements (CPTPP, RCEP). - Strategic neutrality and autonomy.	- Protection of national sovereignty. - Mitigation of geopolitical pressures. - Maximization of strategic leverage in international relations.
National Security and Infrastructure	- Promoting cybersecurity and data localization (Cybersecurity Law 2018). - Developing domestic capabilities in strategic technology areas (5G, AI, semiconductors). - Infrastructure investments (North-South Expressway, renewable energy, smart cities).	- Enhanced cybersecurity resilience. - Reduced vulnerability to technological dependencies. - Improved connectivity and sustainable development.

Table 2: Vietnam's Strategic Responses to US-China Technological Rivalry

(Source: Authors' analysis based on the content presented in this section.)

Following this summary, the subsequent subsections offer a deeper exploration of each strategic area, beginning with Vietnam's economic policies.

Economic Policies

Vietnam's economic policies in response to the US-China technological rivalry demonstrate a strategic effort to enhance its economic resilience and technological capabilities while positioning itself as a key player in the global value chain. These policies are grounded in three critical priorities: attracting high-tech foreign direct investment, diversifying supply chains, and fostering domestic industrial innovation.

Recognizing the shift in global supply chains triggered by the US-China rivalry, Vietnam has implemented targeted policies to attract high-value FDI in advanced technology sectors. The Vietnamese government's initiatives, such as Decision No. 667/QĐ-TTg (2022), prioritize investments in industries like semiconductors, renewable energy, and information technology (phủ, 2022). By offering competitive tax incentives, improving regulatory frameworks, and enhancing transparency, Vietnam has successfully positioned itself as an attractive destination

for multinational corporations. Companies such as Samsung, Apple, and Intel have already established manufacturing hubs in Vietnam, contributing to job creation, technology transfer, and integration into global supply chains (Forum, 2025). Moreover, Vietnam has strategically developed specialized economic zones and high-tech parks, such as the Saigon Hi-Tech Park and the Hoa Lac Hi-Tech Park. These zones provide advanced infrastructure and streamlined administrative support, ensuring that Vietnam remains competitive against regional peers like Malaysia and Thailand (P. T. T. Bình, 2023).

In response to the increasing fragmentation of global supply chains, Vietnam has adopted policies to diversify its trade partnerships and reduce overdependence on any single market. The government's active participation in multilateral trade agreements, such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership and the Regional Comprehensive Economic Partnership, has expanded Vietnam's access to key export markets (Cafef, 2025). These agreements not only bolster Vietnam's economic integration but also enhance its role as a critical link in global supply chains, particularly in high-tech manufacturing. Additionally, Vietnam has focused on building resilient supply chains by collaborating with partners beyond the US and China. Efforts to strengthen ties with the European Union (via the EU-Vietnam Free Trade Agreement) and Japan have facilitated technology sharing and investment inflows, diversifying Vietnam's economic portfolio and mitigating risks associated with geopolitical tensions (Gembah, 2025; R. NGUYEN, 2024).

Vietnam has also prioritized policies to enhance its domestic industrial capabilities and reduce reliance on imported technologies. Investments in research and development (R&D) have been encouraged through partnerships between government, academia, and the private sector. For example, initiatives to develop homegrown technologies in semiconductors, artificial intelligence, and renewable energy reflect Vietnam's ambition to move up the global value chain (H. Anh, 2024 ; Nguyễn, 2023 ; Perkins & Anh, 2024). Furthermore, workforce development has been a key focus of Vietnam's economic strategy. By investing in STEM (science, technology, engineering, and mathematics) education and vocational training programs, Vietnam is equipping its labor force with the skills required to meet the demands of high-tech industries. The establishment of innovation hubs and technology incubators further supports the growth of local startups and entrepreneurial ventures.

Vietnam's economic policies reflect a proactive and adaptive approach to the challenges and opportunities presented by the US-China technological rivalry. By attracting high-tech FDI, diversifying supply chains, and fostering domestic innovation, Vietnam has laid a solid foundation for sustainable economic growth and technological advancement in an increasingly polarized global landscape.

Diplomatic Balancing

Vietnam's diplomatic strategy in the context of the US-China technological rivalry exemplifies its ability to balance relationships with both superpowers while safeguarding national interests. This delicate balancing act underscores Vietnam's commitment to a foreign policy of multilateralism, strategic neutrality, and proactive engagement, allowing it to navigate a polarized global landscape effectively.

Vietnam has progressively deepened its relationship with the United States, recognizing the importance of technological collaboration and economic partnerships. The Comprehensive Partnership between the two nations has facilitated high-level dialogues on trade, investment,

and innovation, particularly in areas such as semiconductors, renewable energy, and digital transformation (N. A. Cường, 2022, 2024; Murphy & Denamiel, 2023). Through these engagements, Vietnam has secured opportunities for technology transfer, access to advanced technologies, and expanded market access for its exports. Additionally, Vietnam's participation in US-led initiatives, such as the Indo-Pacific Economic Framework (IPEF), reflects its strategic alignment with efforts to promote regional stability and technological standards consistent with US and allied frameworks. These partnerships also serve to enhance Vietnam's geopolitical leverage without compromising its autonomy.

While fostering closer ties with the United States, Vietnam continues to prioritize its relationship with China, its largest trading partner. The Comprehensive Strategic Cooperative Partnership between Vietnam and China emphasizes economic interdependence, border stability, and cooperation on regional security issues (Xinhua, 2023). Vietnam's engagement with China has focused on ensuring uninterrupted trade flows, maintaining peace in the South China Sea, and securing Chinese investment in infrastructure projects (Sebin, 2024). However, Vietnam has carefully navigated potential risks associated with overreliance on China. By diversifying its trade partnerships and strengthening its domestic capabilities, Vietnam has mitigated vulnerabilities that could arise from asymmetrical dependencies (Lin, Douglas, & Feng, 2024).

Vietnam's diplomatic balancing act is further supported by its active role in multilateral organizations, particularly ASEAN. As a core member, Vietnam has promoted initiatives aimed at maintaining regional stability, fostering economic integration, and enhancing technological cooperation. The ASEAN Digital Masterplan 2025, for example, aligns with Vietnam's vision of regional digital transformation and positions it as a leader in shaping the bloc's technological agenda (ASEAN, 2021a; Dharmaraj, 2024). Moreover, Vietnam's engagement in broader multilateral frameworks, such as the CPTPP and the RCEP, reflects its commitment to a rules-based international order (T. T. Anh, 2021; Tuấn, 2021). These platforms not only diversify Vietnam's economic partnerships but also enhance its voice in global trade and technology governance.

Vietnam's diplomatic strategy demonstrates a nuanced approach to balancing autonomy and alignment. By engaging with both the United States and China while leveraging multilateral frameworks, Vietnam has avoided overt alignment with either power. This approach ensures that Vietnam retains its strategic autonomy while maximizing the benefits of its relationships with both superpowers (Trọng, 2023; Xinru & Kang, 2023). Furthermore, Vietnam's ability to act as a bridge between competing technological standards positions it as an indispensable player in fostering global interoperability.

Vietnam's diplomatic balancing strategy reflects its adaptability and pragmatism in navigating the complexities of the US-China technological rivalry. Through strengthened bilateral ties, proactive multilateralism, and a focus on strategic autonomy, Vietnam has effectively positioned itself as a resilient and influential player in an increasingly polarized world.

National Security and Infrastructure

In the context of the US-China technological rivalry, ensuring national security and developing resilient infrastructure are critical components of Vietnam's strategic responses. These efforts focus on safeguarding the country's sovereignty while building the capacity to compete in an increasingly polarized and technology-driven global environment.

Vietnam's reliance on foreign technologies, particularly from major powers like the US and

China, has raised concerns about national security vulnerabilities. To mitigate these risks, Vietnam has prioritized investments in developing domestic technological capabilities. The government has implemented policies aimed at fostering innovation in critical sectors, such as artificial intelligence (AI), semiconductors, and cybersecurity, with an emphasis on reducing dependency on foreign suppliers (Lakshmi, 2024; Quỳ, 2025). For example, Vietnam is encouraging public-private partnerships to establish research hubs and technology incubators, which serve as platforms for innovation and talent development.

Additionally, Vietnam has recognized the importance of diversifying its technological sources. By engaging with multiple partners, including Japan, South Korea, and the European Union, Vietnam is working to secure access to cutting-edge technologies while avoiding overreliance on a single source (Hạnh, 2020; Hường, 2022). This approach not only strengthens Vietnam's technological autonomy but also enhances its resilience against potential geopolitical disruptions.

As the digital economy becomes an increasingly important driver of growth, Vietnam faces rising cybersecurity threats that could compromise critical national infrastructure. The government has responded by implementing comprehensive cybersecurity laws and strengthening the regulatory framework to protect sensitive data and networks (hội, 2018). Notable initiatives include the adoption of the Cybersecurity Law in 2018, which mandates data localization and establishes stringent requirements for protecting digital infrastructure. In addition, Vietnam is collaborating with international partners to enhance its cybersecurity capabilities. Joint training programs, knowledge-sharing initiatives, and investments in advanced cybersecurity technologies are equipping Vietnam to address emerging threats (Bích, 2024). These efforts not only protect Vietnam's economic and security interests but also position the country as a regional leader in digital resilience.

Recognizing that robust infrastructure is fundamental to economic and security goals, Vietnam has made substantial investments in both physical and digital infrastructure. The expansion of its 5G network, with contributions from diverse suppliers such as Ericsson, Nokia, and Samsung, reflects Vietnam's strategic intent to maintain technological neutrality while advancing connectivity (V. Tien, 2024). These investments are critical for supporting the growth of smart cities, e-commerce, and digital services, which are key to Vietnam's long-term competitiveness.

On the physical infrastructure front, Vietnam is prioritizing the development of logistics networks, energy systems, and transport corridors to facilitate trade and improve supply chain efficiency. Projects such as the North-South Expressway and renewable energy initiatives underscore Vietnam's commitment to building sustainable and future-proof infrastructure (Huy, 2024).

As global supply chains become increasingly fragmented, Vietnam is taking proactive measures to safeguard the security of its critical supply chains. These measures include identifying vulnerabilities in key industries, such as electronics and pharmaceuticals, and implementing contingency plans to ensure continuity during disruptions. By collaborating with international partners and aligning its supply chain policies with global best practices, Vietnam aims to enhance its economic and security resilience (Thảo, 2024 ; TTXVN, 2025).

Vietnam's emphasis on national security and infrastructure development demonstrates a forward-looking approach to navigating the challenges of the US-China technological rivalry. By fostering technological autonomy, strengthening cybersecurity, and modernizing its

infrastructure, Vietnam is laying the groundwork for sustainable growth and enhanced resilience in an increasingly interconnected and volatile global environment.

Policy Recommendations

Considering the evolving geopolitical dynamics and technological tensions arising from the US-China rivalry, Vietnam must adopt targeted policies to navigate future challenges while maximizing emerging opportunities. This section outlines strategic recommendations across three essential domains: technological capabilities, economic resilience, and regional cooperation.

To succinctly capture the recommended policy actions, Table 3 provides a structured summary of the specific measures and their intended outcomes:

Policy Domains	Specific Recommendations & Actions	Expected Outcomes & Impacts
Enhancing Technological Capabilities	- Increasing R&D investment (AI, Semiconductors, Renewable energy) - Strengthening STEM education and vocational training programs - Promoting digital transformation (National Digital Transformation Program) - Fostering innovation ecosystems and startups (“Vietnam Startup Nation 2025”)	- Higher domestic innovation capacity - Skilled workforce aligned with future needs - Digital economy growth and increased productivity
Strengthening Economic Resilience	- Diversifying trade partnerships (EU-Vietnam FTA, CPTPP, RCEP) - Strengthening domestic supply chains and logistics infrastructure (North-South Expressway, seaport expansions) - Facilitating technology transfer from FDI enterprises - Mitigating vulnerabilities (food security, renewable energy)	- Reduced dependency on single markets - Robust and resilient supply chains - Enhanced competitiveness through technology transfer
Promoting Regional Cooperation	- Active participation and leadership in ASEAN initiatives (ASEAN Digital Masterplan 2025) - Leveraging multilateral trade agreements (CPTPP, RCEP) - Encouraging cross-border technology collaborations (with Japan, Korea, Singapore) - Cooperation on sustainable development (renewable energy, climate change initiatives)	- Increased regional influence and stability - Improved access to technology and markets - Shared regional development and sustainability

Table 3: Summary of Recommended Policies for Vietnam’s Strategic Development

(Source: Authors’ recommendations based on preceding analysis.)

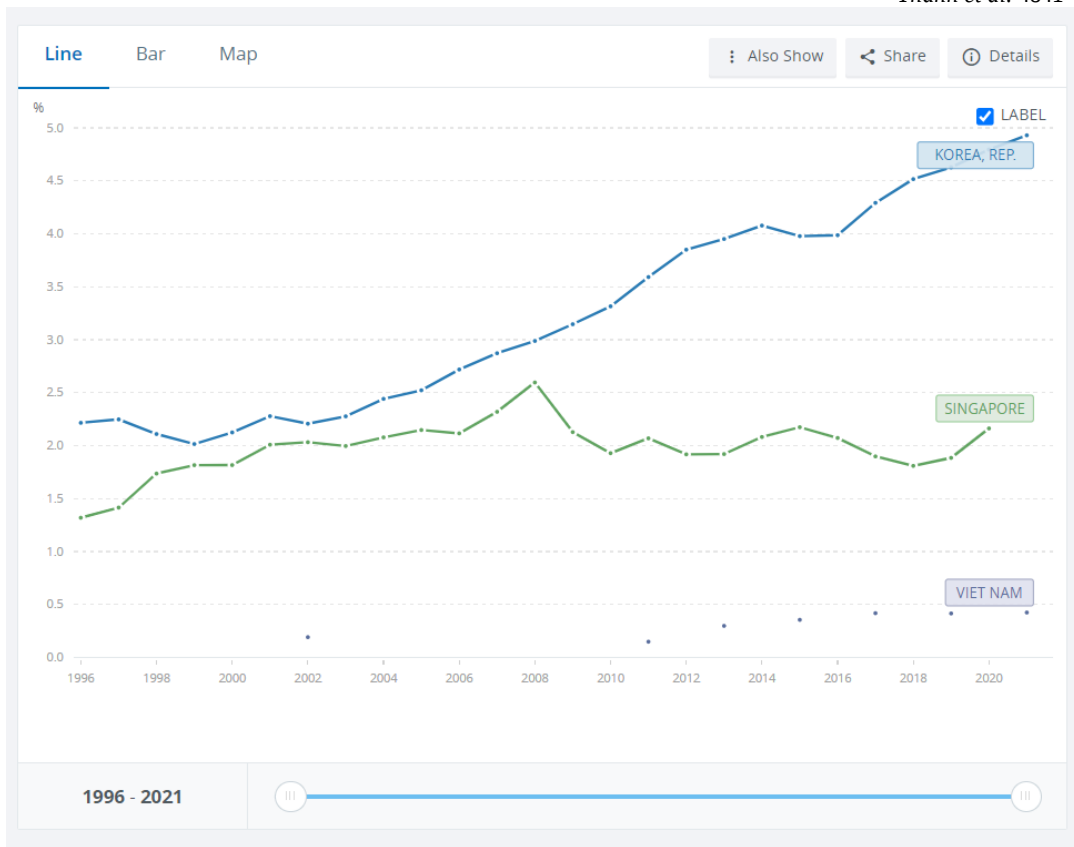
Subsequent subsections provide a deeper exploration of each policy area, offering detailed guidance on the implementation and potential impacts.

Enhancing Technological Capabilities

The rapid evolution of the global technological landscape, intensified by the US-China rivalry, has underscored the importance of enhancing Vietnam’s domestic technological capabilities. To maintain competitiveness and foster long-term economic growth, Vietnam must focus on building a robust innovation ecosystem, advancing research and development (R&D), and cultivating a skilled workforce tailored to high-tech industries.

A critical pillar of Vietnam’s strategy to enhance technological capabilities lies in increasing investment in R&D. Current R&D expenditure as a percentage of GDP remains modest compared to regional peers such as South Korea and Singapore (See Tale and Chart below).

Country	Most Recent Year	Most Recent Value	
Korea, Rep.	2021	4.93	
Singapore	2020	2.16	
Viet Nam	2021	0.43	



Source: World Bank – R&D Expenditure (% of GDP)

(<https://data.worldbank.org/indicator/GB.XPD.RSDV.GD.ZS?end=2021&locations=KR-SG-VN&start=1996&view=chart>)

To address this gap, Vietnam has prioritized funding for projects in key sectors, including artificial intelligence (AI), semiconductors, renewable energy, and biotechnology. Public-private partnerships (PPPs) have emerged as a vital mechanism to mobilize resources, facilitate knowledge transfer, and drive innovation. For instance, collaborative efforts between Vietnamese universities and multinational corporations such as Samsung and Intel have accelerated advancements in microelectronics and chip design. Additionally, Vietnam is establishing national research hubs and innovation clusters modeled after global success stories like Silicon Valley and South Korea's Daedeok Innopolis. These hubs aim to concentrate resources, attract international talent, and provide state-of-the-art facilities for startups and established firms alike.

To meet the demands of a high-tech economy, Vietnam has emphasized the importance of cultivating a skilled and adaptable workforce. Investments in STEM education are essential to equip students with the technical expertise and problem-solving skills required in emerging industries. The government has also launched vocational training programs and reskilling initiatives, particularly for workers transitioning from traditional manufacturing to advanced technological sectors (Interesse, 2025; P. L. Nguyen, 2024). Moreover, partnerships with global educational institutions and private enterprises have expanded opportunities for Vietnamese

students to access cutting-edge training and internships. For example, initiatives supported by the World Bank and international technology firms provide scholarships and industry-specific training, fostering a new generation of tech-savvy professionals capable of driving innovation.

Promoting Digital Transformation

Digital transformation has become a cornerstone of Vietnam's efforts to enhance technological capabilities. The government's "National Digital Transformation Program" aims to digitize public services, modernize industries, and integrate digital technologies across sectors by 2030 (phủ, 2020). By promoting the adoption of cloud computing, big data, and the Internet of Things (IoT), Vietnam is creating a digital ecosystem that enhances productivity and connectivity. Furthermore, initiatives to expand 5G infrastructure and smart city projects are providing a foundation for future innovations. These efforts not only improve Vietnam's competitiveness in global value chains but also position it as a regional leader in digital technology.

Vietnam's burgeoning startup ecosystem represents a significant opportunity to enhance its technological capabilities. Government-backed programs, such as "Vietnam Startup Nation 2025," provide funding, mentorship, and networking opportunities for entrepreneurs, enabling them to commercialize innovative ideas (phủ, 2016). Additionally, international investors have increasingly shown interest in Vietnam's startup scene, particularly in sectors like fintech, edtech, and green technology. By fostering collaboration between startups, established firms, and research institutions, Vietnam is building a dynamic and interconnected innovation ecosystem. This approach not only accelerates technological development but also drives job creation and economic diversification.

Enhancing technological capabilities is central to Vietnam's strategy for navigating the challenges and opportunities of the US-China rivalry. Through strategic investments in R&D, education, digital transformation, and the startup ecosystem, Vietnam is laying the foundation for sustained innovation and global competitiveness in the years to come.

Strengthening Economic Resilience

In the face of escalating global uncertainties and the technological rivalry between the US and China, Vietnam's efforts to strengthen its economic resilience have become a central pillar of its development strategy. Enhancing resilience requires diversified economic partnerships, robust domestic industrial policies, and forward-looking initiatives to mitigate external shocks while sustaining long-term growth.

A key strategy for enhancing Vietnam's economic resilience is the diversification of trade partnerships and export markets. While China and the United States remain Vietnam's largest trading partners, over-reliance on these two economies poses significant risks amid rising geopolitical tensions (Guarascio, 2025; Samuel, 2022). To address this vulnerability, Vietnam has actively sought to expand its trade network through bilateral and multilateral agreements, such as the CPTPP and the RCEP.

These agreements provide Vietnam with preferential market access to key regions, including the European Union, Japan, and Canada, thereby reducing its dependence on any single trading bloc. For example, the EU-Vietnam Free Trade Agreement (EVFTA) has opened opportunities for Vietnamese exporters in high-value sectors such as textiles, electronics, and agricultural products (Trang, Hiep, Tho, Tuan, & Nguyen, 2023). This diversification not only buffers Vietnam against external economic shocks but also fosters greater integration into the global

economy.

Strengthening domestic supply chains is another critical aspect of Vietnam's economic resilience strategy. By reducing reliance on imported intermediate goods, Vietnam can minimize disruptions caused by global supply chain fragmentation. The government has introduced policies to support local industries, particularly in high-tech manufacturing, electronics, and renewable energy. Initiatives to promote linkages between FDI enterprises and local suppliers are fostering the growth of domestic industries, enabling them to participate in global value chains more effectively (Group, 2017; VNS, 2024). Moreover, Vietnam has emphasized investment in logistics and infrastructure to streamline supply chain operations. Projects such as the North-South Expressway and the expansion of key seaports aim to enhance connectivity, reduce transportation costs, and improve supply chain efficiency, thereby strengthening the country's economic foundations (Hien, 2025).

Technology transfer from multinational corporations plays a crucial role in building Vietnam's economic resilience. Vietnam has strategically attracted FDI in high-tech sectors, leveraging these investments to acquire advanced technologies and expertise. For instance, partnerships with companies like Samsung, Intel, and Foxconn have facilitated the transfer of critical technologies, which are now being integrated into local production capabilities (Watch, 2024). In parallel, Vietnam is fostering a culture of innovation through increased investments in research and development (R&D) and the establishment of innovation hubs. These efforts not only enhance the competitiveness of local industries but also position Vietnam as a regional leader in emerging technologies such as AI, renewable energy, and digital transformation.

Vietnam's economic resilience strategy also includes measures to mitigate vulnerabilities to external shocks, such as fluctuations in global demand, supply chain disruptions, and geopolitical tensions. The government has strengthened financial and monetary policies to stabilize the economy during periods of volatility. Initiatives to build foreign exchange reserves, manage public debt, and maintain stable inflation rates have provided a buffer against global economic uncertainties (VNA, 2024). Additionally, Vietnam has prioritized food security and energy independence as critical components of its resilience strategy. Investments in renewable energy projects, such as wind and solar power, are reducing dependence on imported fossil fuels and aligning with global sustainability trends. Similarly, agricultural modernization initiatives are enhancing productivity and ensuring the stability of food supplies, even in times of crisis (Dao & Nguyen, 2022).

Strengthening economic resilience is vital for Vietnam to navigate the complexities of the US-China rivalry and an increasingly uncertain global environment. By diversifying trade partnerships, fostering domestic supply chains, facilitating technology transfer, and mitigating external vulnerabilities, Vietnam is building a more adaptive and sustainable economic framework that can withstand future challenges.

Promoting Regional Cooperation

Promoting regional cooperation is a cornerstone of Vietnam's strategy to navigate the challenges and opportunities presented by the US-China technological rivalry. By leveraging multilateral frameworks and strengthening its ties with regional partners, Vietnam aims to enhance its economic resilience, foster technological collaboration, and maintain regional stability in a polarized global environment.

Vietnam has consistently positioned itself as an active and influential member of the ASEAN.

Through ASEAN, Vietnam has championed initiatives to enhance regional stability, economic integration, and technological advancement. The ASEAN Digital Masterplan 2025, for example, aligns with Vietnam's ambitions to foster digital transformation across the region and bridge technological gaps between member states (Dharmaraj, 2025; Wongwuttawat, Lawanna, & Tantontrakul, 2023). By collaborating with ASEAN members to harmonize technology standards and regulatory frameworks, Vietnam not only strengthens regional connectivity but also positions itself as a leader in shaping the bloc's digital future. Furthermore, Vietnam has actively contributed to ASEAN's efforts to address geopolitical tensions, including disputes in the South China Sea. By advocating for a rules-based order and supporting the negotiation of a Code of Conduct with China, Vietnam has reinforced its commitment to regional peace and cooperation while safeguarding its national interests (Putra, 2024).

Vietnam's engagement in comprehensive trade agreements such as RCEP and the CPTPP underscores its commitment to regional and global economic integration. These agreements provide Vietnam with preferential access to key markets while fostering technology transfer, FDI, and industrial upgrading. By leveraging these frameworks, Vietnam enhances its capacity to diversify trade relationships, reduce dependency on individual partners, and integrate into high-value global supply chains. The CPTPP, in particular, has been instrumental in advancing Vietnam's efforts to promote labor standards, environmental sustainability, and intellectual property protections (T. W. Bank, 2024; Maliszewska, Oleksyuk, & Osorio-Rodarte, 2018). These commitments not only elevate Vietnam's standing in international trade but also create a conducive environment for technological innovation and collaboration.

Regional cooperation also enables Vietnam to foster cross-border technology collaboration in areas such as AI, semiconductors, and renewable energy. Collaborative initiatives with countries like Singapore, Japan, and South Korea have facilitated knowledge sharing, joint research projects, and the establishment of regional innovation hubs (Huyền & Diệu, 2025). For instance, Vietnam's partnership with Japan in developing advanced manufacturing technologies and its collaboration with Singapore on smart city projects exemplify its proactive approach to leveraging regional expertise. In addition, Vietnam has worked with ASEAN partners to strengthen cybersecurity cooperation, ensuring the security of critical digital infrastructure and promoting regional resilience against cyber threats (Interesse, 2023). These efforts align with Vietnam's broader vision of becoming a regional leader in digital transformation and technological innovation.

Vietnam has also prioritized regional cooperation in advancing sustainable development and addressing climate change. Through partnerships within ASEAN and beyond, Vietnam is actively participating in initiatives to promote the transition to a green economy, such as the ASEAN Plan of Action for Energy Cooperation and joint renewable energy projects (Committee, 2020). These collaborations not only align with Vietnam's commitment to global sustainability goals but also position the country as a leader in the region's shift towards cleaner and more sustainable energy systems.

Promoting regional cooperation is pivotal to Vietnam's ability to navigate the complexities of the US-China technological rivalry. By leveraging ASEAN's collective strength, engaging in multilateral trade agreements, fostering cross-border technology collaboration, and advancing sustainability initiatives, Vietnam is enhancing its regional leadership and securing its role as a key player in the evolving geopolitical and technological landscape.

To effectively translate strategic policy recommendations into practical actions, decision-makers

must clearly understand priorities based on their potential impacts and feasibility. To support this decision-making process, the matrix below (**Matrix 1**) categorizes recommended policy measures, helping policymakers prioritize efforts strategically:

Impact Feasibility \	High Feasibility	Medium Feasibility	Low Feasibility
High Impact	- STEM education enhancement - Digital transformation acceleration - Diversifying trade partnerships (EU, CPTPP)	- Increased R&D investment (AI, Semiconductors) - Strengthening domestic supply chains	- Advanced infrastructure projects (Smart cities)
Medium Impact	- Regional tech collaboration (Japan, Korea) - Innovation hubs & startups	- Vocational training programs - Logistics infrastructure development	- Large-scale renewable energy projects
Low Impact	- General awareness campaigns	- Incremental improvement in regulatory frameworks	- Small-scale pilot projects

Matrix 1: Policy Recommendations Priority Matrix

(Source: Authors' compilation based on analysis of impact and implementation feasibility.)

By employing this matrix, policymakers can immediately focus on high-impact, highly feasible strategies while preparing the groundwork for more complex, longer-term initiatives. The subsequent section will outline a practical roadmap and recommendations for effectively implementing these prioritized policies.

Conclusion

As global technological tensions rise, Vietnam finds itself at a crossroads, with both opportunities and risks shaping its future. Positioned strategically in Southeast Asia, the nation has taken steps to harness its advantages in the face of an increasingly polarized world driven by the competition between the US and China. Through a combination of economic diplomacy, FDI, and active participation in global partnerships, Vietnam has worked to fortify its position in the worldwide economy.

Yet, the path ahead is fraught with challenges. While Vietnam's engagement in international trade agreements like the CPTPP and RCEP has bolstered its economic standing, the country must address its vulnerabilities—namely, its dependence on foreign technology and the rising threat of cybersecurity risks. Furthermore, the ongoing geopolitical rivalry between the US and China demands that Vietnam tread carefully in balancing its relations with both superpowers, ensuring its sovereignty and national interests remain intact.

To strengthen its long-term resilience, Vietnam must prioritize developing its domestic technological sector, moving towards greater self-sufficiency, and reducing reliance on external technology sources. This will require an increased focus on innovation, research and

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development, and cultivating a highly skilled workforce. Additionally, securing its digital infrastructure will be paramount, ensuring both national security and the continued flow of international investment.

Looking beyond the immediate future, Vietnam's role within regional frameworks like ASEAN will be critical. By enhancing cooperation with its neighbors and participating more actively in shaping the global digital economy, Vietnam can bolster its influence on the international stage. However, navigating this evolving global environment requires a careful balance: economic growth must be paired with robust measures for cybersecurity and technological autonomy.

In sum, while Vietnam has made notable strides in positioning itself within the broader technological landscape, the evolving global dynamics will require continual adaptation. To thrive in the face of ongoing competition, Vietnam must strengthen its innovation ecosystem, mitigate existing risks, and remain flexible to shifting geopolitical pressures. This approach will ensure that the country remains competitive and secure in a world that is increasingly defined by technological advancement.

Appendices

1. Summary Table of Vietnam's Key Opportunities and Challenges

Opportunities	Challenges
Economic growth through FDI	Dependence on foreign technology
Multinational companies (Apple, Samsung, Intel) investing in Vietnam.	Vietnam depends on US and Chinese technologies in key industries like semiconductors and AI.
Domestic technology advancement	Cybersecurity vulnerabilities
Technology collaboration initiatives, particularly in high-tech parks and startups.	The use of foreign technology increases security risks and the risk of cyberattacks.
Enhanced regional cooperation	Geopolitical pressures
Participation in free trade agreements like CPTPP, RCEP, and regional initiatives.	Complex strategic relations between the US and China make it difficult to maintain balanced foreign relations.

2. Comparative Table of the Impact of US-China Technology Rivalry on Vietnam's Economic Sectors

Economic Sector	Positive Impacts	Negative Impacts
Electronics & Technology	Investment in electronics production, semiconductor development, and advanced technology from US and Chinese companies.	Dependence on imported technology from China and the US; risks from control and surveillance of technology.
Manufacturing & Assembly	Vietnam is a preferred destination for manufacturing facilities, helping to develop industrial infrastructure.	Strong competition from countries like India and Indonesia in attracting FDI.
Renewable Energy	Attracting investment in wind and solar energy from international partners.	Dependence on imported technology and equipment, especially from China in renewable energy.
Digital Services & Digital Transformation	Driving the development of digital services and technological infrastructure in Vietnam.	Security vulnerabilities due to using technology from countries with cyber risks.

3. Overview Table of FDI Investment in Vietnam (As of 2024)

Year	Investment Amount (USD)	Main Investor Countries	Main Sectors Receiving Investment
2020	16 billion USD	South Korea, Japan, Singapore	Technology, Electronics, Renewable Energy
2021	18 billion USD	US, South Korea, China	Manufacturing, Semiconductors, Electronics, High-tech Services
2022	19.5 billion USD	Japan, US, Singapore	Information Technology, Renewable Energy, Manufacturing
2023	20 billion USD	South Korea, Singapore, US	Electronics Manufacturing, Manufacturing, Green Technology, Food Production

4. Overview Table of Vietnam's Key Trade Agreements

Trade Agreement	Vietnam's Participation Status	Expected Benefits
CPTPP (Comprehensive and Progressive Agreement for Trans-Pacific Partnership)	Member since 2018	Access to markets of 11 countries, boosting high-tech production and exports
RCEP (Regional Comprehensive Economic Partnership)	Member since 2020	Expanding markets for exports and reducing dependence on major partners like China and the US
EU-Vietnam Free Trade Agreement (EVFTA)	Member since 2020	Improving trade and technology cooperation with the EU, boosting exports of agricultural products and clean technology

Competing Interests

The authors declare no competing interests.

Data Availability

Data sharing is not applicable to this article as no new data were created or analyzed in this study. The study is based on only secondary data.

Ethical Approval

This article does not contain any studies with human participants performed by any of the authors.

Informed Consent

This article does not contain any studies with human participants performed by any of the authors.

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