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COMPACT Framework: Strengthening India-US Ties in Defence, Trade, and Technology

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ABSTRACT

The COMPACT Framework (Catalyzing Opportunities for Military Partnership, Accelerated Commerce, and Technology) serves as a pivotal mechanism in strengthening India-US strategic ties across defence, trade, and technology sectors. This research article examines the key policy measures necessary to ensure its long-term success, focusing on regulatory alignment, defence cooperation, trade facilitation, supply chain resilience, cybersecurity, and emerging technologies. The paper highlights the importance of harmonising legal frameworks, fostering joint research collaborations, and enhancing maritime security in the Indo-Pacific region. Further, it explores the geopolitical implications of COMPACT and the challenges posed by bureaucratic barriers, strategic misalignments, and cybersecurity threats. The findings suggest that sustaining COMPACT requires bipartisan political support, institutionalised cooperation mechanisms, and a clear roadmap for economic and technological collaboration. By implementing forward-looking policies, India and the US can bolster military interoperability, drive economic growth, and position themselves as global leaders in innovation and security.

KEYWORDS: *COMPACT Framework, India-US Relations, Defence Cooperation, Trade and Investment, Emerging Technologies, Supply Chain Resilience, Cybersecurity, Indo-Pacific Security, Strategic Partnerships, Policy Alignment*

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INTRODUCTION

The 21st century has ushered in a new era of strategic partnerships, where geopolitical alliances are increasingly defined by cooperation in defence, trade, and technology. Among the most significant of these evolving relationships is the India-United States (US) partnership, which has witnessed remarkable growth over the past two decades. From being two democracies with limited engagement during the Cold War to becoming comprehensive global strategic partners, India and the US have expanded their cooperation across multiple domains, driven by shared interests in security, economic prosperity, and technological leadership. The COMPACT Framework (Catalyzing Opportunities for Military Partnership, Accelerated Commerce, and Technology) represents a pivotal initiative aimed at strengthening this bilateral relationship by fostering deeper collaboration in these key areas.

The COMPACT Framework is designed to consolidate existing agreements and initiatives such as COMCASA (Communications Compatibility and Security Agreement), BECA (Basic Exchange and Cooperation Agreement), and LEMOA (Logistics Exchange Memorandum of Agreement) in the defence sector while also accelerating trade and investment flows and enhancing joint efforts in emerging technologies. This framework aligns with the broader strategic objectives of both nations, particularly in countering shared security threats, securing supply chains, and driving innovation in artificial intelligence (AI), quantum computing, cybersecurity, space exploration, and semiconductor manufacturing.

The geopolitical landscape of the Indo-Pacific has been a key driver of the India-US partnership, with both countries advocating for a free, open, and rules-

based order in the region. Amid rising challenges cybersecurity threats, and supply chain vulnerabilities, India and the US have recognised the need to bolster their defence and economic ties. The Quadrilateral Security Dialogue (Quad), which includes India, the US, Japan, and Australia, further highlights the importance of this regional security architecture. The COMPACT Framework seeks to complement these efforts by institutionalising and expanding military cooperation, facilitating technology transfers, and enabling deeper engagement in critical economic sectors.

On the economic front, India and the US share a robust trade relationship, with bilateral trade surpassing $191 billion in 2022. However, trade barriers, regulatory challenges, and concerns over tariffs have sometimes hindered progress. COMPACT aims to streamline economic collaboration by promoting investment-friendly policies, diversifying global supply chains, and fostering innovative ecosystems. The framework also aligns with India's Make in India and Atmanirbhar Bharat initiatives, encouraging joint ventures in defence production, clean energy, and digital infrastructure. In the field of technology, India and the US have emerged as global hubs for innovation. The US-India Initiative on Critical and Emerging Technologies (iCET) has already laid the foundation for cooperation in areas such as semiconductors, telecommunications, and AI research. Under COMPACT, these efforts will be further strengthened, ensuring that both nations remain at the forefront of technological advancements while addressing challenges related to data security, intellectual property rights, and ethical AI governance.

Methodology

This research paper adopts a qualitative and analytical approach to examine the COMPACT Framework and its implications for India-US relations in defence, trade, and technology. The study is based on a comprehensive review of primary and secondary sources, including official government reports, policy documents, bilateral agreements, academic journals, and think tank analyses. A comparative analysis of existing frameworks such as COMCASA, BECA, LEMOA, and iCET is conducted to assess how COMPACT enhances strategic collaboration. Besides, geopolitical and economic trends are analysed to evaluate the framework's impact on Indo-Pacific security, global trade dynamics, and technological innovation. The paper also incorporates policy recommendations to identify challenges and propose strategic solutions for the successful implementation of COMPACT. By synthesising insights from multiple sources, this research paper provides a comprehensive evaluation of COMPACT's role in strengthening India-US ties and shaping the future of bilateral cooperation.

Objectives

The primary objective of this research is to analyze the COMPACT Framework (Catalyzing Opportunities for Military Partnership, Accelerated Commerce, and Technology) and its role in strengthening India-US relations across defence, trade, and technology. This study aims to evaluate the impact of COMPACT on military interoperability, strategic defence cooperation, and Indo-Pacific security by examining its alignment with existing agreements such as COMCASA, BECA, and LEMOA. In addition, the paper seeks to assess the economic implications of COMPACT in fostering bilateral trade, investment, and supply chain resilience. Another key objective is to explore collaborations in emerging technologies such as artificial intelligence (AI), quantum computing, cybersecurity, and space exploration while identifying opportunities for technological innovation and joint ventures. Also, this paper aims to analyse the geopolitical significance of COMPACT, assessing its role in shaping regional security and global strategic alignments. Finally, the research paper seeks to identify potential challenges in implementing COMPACT and provide policy recommendations to enhance its long-term success and sustainability.

Importance

This research article is crucial as it provides a comprehensive analysis of the COMPACT Framework, a strategic initiative shaping India-US relations in defence, trade, and technology. At a time when global geopolitics is rapidly evolving, understanding the implications of COMPACT is essential for policymakers, defence analysts, economists, and technology experts. The study highlights how COMPACT strengthens military interoperability, enhances trade partnerships, and accelerates technological advancements, thereby contributing to regional security, economic resilience, and innovation-driven growth. Additionally, this research addresses key challenges such as regulatory barriers, geopolitical complexities, and policy misalignments, offering practical insights and policy recommendations for maximizing the framework's effectiveness. By shedding light on the broader strategic and economic impact of COMPACT, this article serves as a valuable resource for governments, businesses, and academic institutions seeking to

understand and leverage this evolving partnership for mutual growth and global stability.

Enhancing India-US military interoperability

- The COMPACT Framework plays a pivotal role in enhancing India-US military interoperability by deepening defence cooperation through technology sharing, joint exercises, and intelligence exchange. Building upon foundational agreements like COMCASA[1] (Communications Compatibility and Security Agreement), BECA[2] (Basic Exchange and Cooperation Agreement), and LEMOA (Logistics Exchange Memorandum of Agreement), COMPACT[3] facilitates seamless communication, logistics support, and real-time data sharing between the armed forces of both nations. This level of integration allows India and the US to operate more effectively during joint military operations, humanitarian missions, and maritime security exercises. The framework also promotes co-development and co-production of defence equipment, reducing reliance on third-party suppliers and strengthening indigenous defence capabilities under India's Atmanirbhar Bharat initiative.
- In the face of geopolitical tensions in the Indo-Pacific, the COMPACT Framework reinforces regional security architecture by fostering deeper naval, air, and cyber defence partnerships between India and the US. As China's influence grows in the South China Sea and Indian Ocean Region (IOR), COMPACT enhances India's ability to counter security threats, ensure freedom of navigation, and protect strategic sea lanes that are vital for global trade.
- The framework also aligns with multilateral initiatives such as the Quad[4] - India, US, Japan, Australia, and AUKUS[5] - Australia, United Kingdom, United States of America, enabling greater coordination in maritime domain awareness, counterterrorism, and disaster response. Further, by facilitating the transfer of cutting-edge military technology, surveillance systems, and cybersecurity solutions, COMPACT helps both nations stay ahead of emerging threats, including cyber warfare and hybrid conflicts.
- A key aspect of COMPACT's contribution to military interoperability is its emphasis on joint military training, war games, and defence research collaborations. Initiatives like the Malabar Naval Exercise[6], Yudh Abhyas[7], and Tiger Triumph[8] serve as platforms for sharing best practices, improving operational coordination, and testing advanced warfare strategies. By streamlining defence technology integration, COMPACT enables India to leverage US expertise in missile defence systems, drone technology, and space-based intelligence, strengthening its deterrence capabilities. The framework also facilitates the expansion of defence industrial cooperation, supporting joint ventures between Indian and American defence firms to produce fighter jets, naval vessels, and precision weaponry.[9]
- In the digital age, military interoperability extends beyond conventional warfare to include cybersecurity, artificial intelligence (AI), and space-based defence systems. COMPACT enhances India-US cybersecurity collaboration by improving intelligence sharing on cyber threats, electronic warfare, and countermeasures against cyberattacks on critical infrastructure.[10]
- The framework encourages the adoption of secure communication networks between the armed forces of both nations, reducing vulnerabilities to cyber espionage and data breaches. Cooperation in space-based surveillance and satellite defence technologies ensures greater situational awareness, particularly in monitoring hostile military movements, missile launches, and underwater threats in the Indo-Pacific.[11]

Expanding Bilateral Trade and Investment

- The COMPACT Framework opens new avenues for India-US trade and investment, fostering a dynamic economic partnership. By reducing tariff and non-tariff barriers, COMPACT aims to facilitate smoother market access for key sectors, including manufacturing, technology, and services. The US is one of India's largest trading partners[12], and COMPACT seeks to expand trade volumes by promoting preferential market entry for goods such as pharmaceuticals, textiles, and agricultural products. In return, India provides a growing market for US technology, defence equipment, and energy exports. Through bilateral trade negotiations, the framework is expected to enhance ease of doing business, creating a stable and predictable trade environment for companies in both nations.
- One of the most significant trade and investment opportunities under COMPACT lies in emerging technologies such as artificial intelligence (AI), quantum computing, semiconductor manufacturing, and clean energy solutions. The framework encourages joint research, co-development initiatives, and technology-sharing agreements, allowing India and the US to reduce dependency on third-party suppliers in strategic

sectors like semiconductors and rare earth minerals.[13] With the US actively looking to diversify its supply chains away from China, COMPACT provides India with an opportunity to attract large-scale investments in high-tech manufacturing and R&D facilities. The establishment of joint venture startups, innovation hubs, and technology parks will further boost economic cooperation in this domain.

- Defence trade and co-production are key pillars of COMPACT, offering significant investment opportunities for both nations. India's Make in India and Atmanirbhar Bharat[14] initiatives align well with US interests in expanding defence exports and manufacturing partnerships. COMPACT facilitates joint defence production agreements, technology transfers, and co-development of advanced military systems. This includes partnerships in fighter jets, unmanned aerial vehicles (UAVs), missile defence systems, and cybersecurity infrastructure. The framework also streamlines procurement processes, reducing delays in defence contracts and licensing approvals. As India aims to become a global defence manufacturing hub, US defence firms stand to gain from increased investments and long-term collaborations with Indian industries.[15]
- The COMPACT Framework prioritizes investments in renewable energy, electric vehicles (EVs), and climate-friendly technologies. With both nations committed to reducing carbon emissions and achieving energy security, the framework supports investments in solar, wind, and hydrogen energy infrastructure.
- India's ambitious renewable energy targets and the US's advanced expertise in clean energy technology create a mutually beneficial trade ecosystem.[16] The removal of regulatory hurdles in energy trade, along with incentives for green financing and cross-border investments, will accelerate the transition to sustainable energy solutions. This collaboration also extends to critical minerals like lithium, essential for battery production, ensuring a secure supply chain for the growing EV and electronics industries.
- Despite strong trade relations, regulatory and policy barriers have hindered seamless economic collaboration between India and the US. COMPACT aims to resolve disputes related to tariffs, intellectual property rights (IPR), and foreign direct investment (FDI) regulations. India has historically faced high tariffs on exports such as steel, textiles, and agricultural products, while the US has raised concerns over India's price controls on pharmaceuticals and medical devices.[17] COMPACT promotes bilateral dialogue and structured trade negotiations to remove these obstacles and create a more predictable business environment. Streamlining visa policies for skilled professionals in the IT and tech sectors will facilitate the movement of talent, ensuring greater economic synergy between both nations.
- As digital trade becomes an essential component of global commerce, COMPACT emphasises collaboration in digital infrastructure, fintech, and e-commerce regulations. India's thriving digital economy, coupled with the US's leadership in cloud computing, AI, and fintech innovations, offers vast opportunities for investment. Addressing cross-border data flow regulations, digital taxation issues, and cybersecurity challenges will ensure seamless expansion of e-commerce and digital payments between the two nations. Companies like Amazon, Google, and Microsoft are already investing heavily in India's data centers and digital ecosystems, and COMPACT seeks to further facilitate foreign investments while safeguarding national interests in cybersecurity and data protection.[18]
- One of the key objectives of COMPACT is to create resilient supply chains in semiconductors, pharmaceuticals, and critical raw materials. The US-China trade tensions have prompted the US to seek alternative manufacturing hubs, and India presents a viable option for relocating production and diversifying supply chains.[19] Initiatives under COMPACT encourage US companies to invest in India's industrial corridors, logistics hubs, and special economic zones (SEZs). Joint efforts in manufacturing automation, AI-driven logistics, and smart infrastructure development will enhance India's role as a global production and supply chain leader.

Trade Barriers and Regulatory Challenges

Despite strong trade relations, tariffs, regulatory misalignment, and non-tariff barriers have often hindered seamless commerce between India and the US. COMPACT aims to resolve these issues through policy dialogues, trade facilitation agreements, and sector-specific regulatory harmonization.

- The framework seeks to negotiate lower tariffs on key exports such as agricultural products, textiles, and electronics, ensuring fair market access for businesses on both sides. The removal of India from the US Generalized System of Preferences[20] (GSP) in 2019 has been a contentious issue, and

COMPACT could pave the way for its reinstatement, benefiting Indian exporters.

- COMPACT supports efforts to diversify global supply chains, reducing reliance on China-centric production hubs. By enhancing port infrastructure, logistics networks, and customs digitization, the framework facilitates smoother trade flows and reduces bottlenecks in goods movement.
- One of the key trade disputes between India and the US has been over intellectual property protection, patent laws, and technology transfer regulations.[21] COMPACT promotes mutual recognition agreements and structured dialogues to address concerns related to pharmaceutical patents, digital trade policies, and AI governance.
- COMPACT encourages reforms to improve the business climate in India, streamlining investment approval processes, reducing bureaucratic delays, and ensuring legal certainty for American firms entering the Indian market. The framework also promotes bilateral investment treaties (BITs) to safeguard investor interests.

Collaboration in emerging technologies:

- The COMPACT Framework fosters deep collaboration between India and the US in Artificial Intelligence (AI) by encouraging joint research, policy alignment, and industry partnerships.[22] Both nations recognize AI as a transformative technology with applications in defence, healthcare, finance, and smart infrastructure. Under COMPACT, AI talent exchange programs, research grants, and startup collaborations are being promoted to accelerate innovation. US tech giants such as Google, Microsoft, and NVIDIA are expanding their AI research initiatives in India, contributing to the development of ethical AI governance, explainable AI models, and AI-driven automation.[23] Defence cooperation in AI-powered autonomous weapons, predictive analytics, and surveillance systems enhances military capabilities, reinforcing security and strategic preparedness.
- Quantum computing is a frontier technology that holds the potential to revolutionize computing power, cryptography, and material sciences. Through COMPACT, India and the US are partnering on quantum research, workforce training, and infrastructure development. The framework supports collaborations between India's National Quantum Mission and US-based institutions like IBM, Google Quantum AI, and the National Quantum Initiative. Joint research in quantum cryptography and quantum communication networks aims to develop highly secure encryption methods, crucial for cybersecurity and defence applications. COMPACT facilitates technology transfer agreements to help India establish a quantum computing ecosystem, ensuring its integration into global quantum innovation networks.
- Cybersecurity is a critical pillar of India-US strategic cooperation, with COMPACT playing a key role in strengthening cyber defence mechanisms, intelligence sharing, and regulatory frameworks. The framework facilitates real-time threat intelligence exchange, cybersecurity training programs, and joint research on cyber resilience. Both nations are working together to combat cyber threats posed by state-sponsored attacks, ransomware groups, and digital espionage. COMPACT also promotes collaboration in cloud security, digital forensics, and AI-driven cyber defence systems, enhancing the ability to mitigate cyber risks across government, financial, and defence sectors. India and the US are aligning policies on data privacy, cross-border data flows, and digital trade regulations, ensuring a secure and open cyber ecosystem.
- Space exploration is a key domain where India and the US have a history of cooperation[24], and COMPACT strengthens this collaboration by promoting joint missions, satellite development, and deep-space exploration programs. The Indian Space Research Organisation (ISRO) and NASA are already working together on initiatives such as the NASA-ISRO Synthetic Aperture Radar (NISAR) mission, designed to study climate change and natural disasters. COMPACT expands this partnership by facilitating joint satellite launches, space-based defence applications, and lunar exploration projects. Private space enterprises like SpaceX, Blue Origin, and Indian startups in the space sector are benefiting from technology-sharing agreements and funding support.[25] The framework also encourages cooperation in space situational awareness (SSA), asteroid mining research, and human spaceflight programs, paving the way for long-term collaboration in interplanetary exploration.
- The COMPACT Framework is instrumental in expanding AI applications in defence, urban planning, and smart infrastructure. In the defence sector, AI-powered autonomous weapons, threat detection systems, and unmanned aerial vehicles

(UAVs) are being developed through joint India-US research programs.[26] The integration of AI into real-time battlefield decision-making, predictive maintenance of military equipment, and intelligence analysis enhances the strategic capabilities of both nations.

- COMPACT supports AI-driven smart city initiatives, improving traffic management, public safety, and urban planning through advanced machine learning and IoT (Internet of Things) applications. By fostering collaboration between Indian and American tech startups, universities, and defence agencies, COMPACT ensures the ethical and responsible deployment of AI technologies.
- Under the COMPACT Framework, India and the US are investing in quantum communication and secure networking technologies, which have critical defence and cybersecurity applications. Quantum communication can provide unbreakable encryption for military communications, secure government data transfer, and protection against cyber espionage. Through COMPACT, Indian institutions such as the Raman Research Institute and IITs are collaborating with US-based quantum research centers to develop Quantum Key Distribution (QKD)[27] systems, which will be crucial for national security and secure financial transactions. Partnerships between Indian and American semiconductor industries will accelerate the production of quantum chips and processors, which are essential for high-performance computing in defence simulations, climate modeling, and pharmaceutical research.
- COMPACT plays a vital role in enhancing cybersecurity for critical infrastructure sectors, including power grids, banking systems, healthcare networks, and defence communication channels. With rising cyber threats from state-sponsored actors, ransomware groups, and hacktivists, the framework promotes joint cyber defence exercises, penetration testing, and real-time threat analysis between Indian and US cybersecurity agencies.
- The establishment of Cyber Threat Intelligence Sharing platforms allows for early detection and mitigation of cyberattacks, particularly against financial institutions, defence networks, and government agencies. COMPACT also supports training programs for cybersecurity professionals in both countries, ensuring a well-equipped workforce capable of addressing emerging cyber threats.
- Space security is an increasingly important aspect of global defence strategies, and COMPACT enhances India-US cooperation in space-based intelligence, surveillance, and reconnaissance (ISR). By integrating satellite-based early warning systems, space-based missile tracking, and AI-driven satellite analytics, both nations can bolster their defensive and offensive capabilities. COMPACT fosters collaboration on lunar exploration, asteroid mining, and deep-space missions, strengthening India's position in the global space economy. India's Gagan Yaan[28] human spaceflight mission and NASA's Artemis program are potential areas for greater engagement, allowing for joint astronaut training, space habitat development, and interplanetary research.

Strengthening India-US Strategic Partnership

- The COMPACT Framework plays a pivotal role in deepening India-US strategic ties, reinforcing their position as key players in the evolving global order. As both nations seek to counterbalance China's expanding influence, COMPACT strengthens economic, technological, and defence cooperation, making India a more reliable partner in global security dynamics. By aligning their foreign policies and defence strategies, India and the US are reinforcing a rules-based international order, ensuring free and open trade routes, respect for sovereignty, and adherence to international laws.[29] The framework also enables India to diversify its defence partnerships, reducing historical reliance on Russia for military technology, while gaining access to cutting-edge US defence innovations.
- One of the most significant geopolitical implications of COMPACT is its role in countering China's aggressive expansion in the Indo-Pacific. China's military assertiveness in the South China Sea, Belt and Road Initiative (BRI), and growing economic coercion have raised concerns among regional powers. By enhancing India-US military interoperability, defence production, and maritime security cooperation, COMPACT strengthens deterrence against Chinese assertiveness. The framework integrates India more deeply into the Quadrilateral Security Dialogue[30] (Quad), alongside the US, Japan, and Australia, reinforcing a collective effort to maintain stability and freedom of navigation in the Indo-Pacific.
- The Indo-Pacific is a vital economic corridor, with critical trade routes passing through the Indian Ocean, South China Sea, and Pacific

Ocean. China's militarization of disputed territories and aggressive posturing in the Taiwan Strait and South China Sea pose a challenge to global trade security.[31] Through COMPACT, India and the US are enhancing their naval collaboration, including joint military exercises, intelligence sharing, and defence logistics agreements. This strengthens India's capabilities in anti-submarine warfare, surveillance, and maritime domain awareness, ensuring secure sea lanes of communication (SLOCs). Additionally, closer ties with ASEAN, Japan, and Australia under COMPACT contribute to a more stable regional security architecture.

- Beyond bilateral India-US relations, COMPACT fosters broader defence and technology collaboration with like-minded Indo-Pacific nations. The framework complements existing alliances such as AUKUS (Australia, UK, US) and Quad, facilitating joint research, intelligence sharing, and capacity-building initiatives. It also strengthens India's role as a regional security provider, allowing for greater participation in multilateral military drills, humanitarian assistance, and disaster response (HADR) missions. Furthermore, increased technology transfers under COMPACT empower India's defence sector, boosting indigenous production under Make in India and Atmanirbhar Bharat (Self-Reliant India) initiatives.
- The COVID-19 pandemic and geopolitical tensions have exposed vulnerabilities in global supply chains, particularly due to over-reliance on China for critical raw materials, semiconductors, and pharmaceuticals. COMPACT strengthens India-US collaboration in supply chain resilience, promoting trusted trade routes, diversification of sourcing, and manufacturing partnerships. By integrating India into the US-led Indo-Pacific Economic Framework[32] (IPEF) and semiconductor supply chain initiatives, the framework reduces economic dependence on China, ensuring greater economic security and technological sovereignty for both nations.
- India's geopolitical standing is significantly elevated through COMPACT, as the framework positions it as a key player in global governance, technology, and security. Closer ties with the US allow India to exert greater influence in multilateral forums like the G20, United Nations, and BRICS, ensuring that its interests are well represented in global decision-making.[33] COMPACT strengthens India's bilateral relationships with European, ASEAN, and Pacific nations, enhancing its role as a bridge between the Global North and South.

Regulatory and Bureaucratic Hurdles

- One of the major challenges hindering the effective implementation of the COMPACT Framework is the regulatory and bureaucratic complexities in both India and the US. Differences in export control regulations, intellectual property rights (IPR) policies, and defence procurement procedures can slow down collaboration. The US International Traffic in Arms Regulations[34] (ITAR) imposes strict controls on technology transfers, limiting India's access to cutting-edge defence and dual-use technologies. Additionally, India's bureaucratic red tape in approving foreign direct investment (FDI) in strategic sectors and defence production can delay joint projects and investments. Overcoming these regulatory challenges will require policy alignment, streamlined approval processes, and enhanced trust between both nations.
- While India and the US share common interests in defence, trade, and technology, their strategic priorities sometimes diverge, creating challenges in fully implementing COMPACT. The US prioritizes countering China's influence through strong military alliances, whereas India prefers a more independent foreign policy, balancing its relationships with Russia, the US, and other global players. Additionally, differences in policies regarding data privacy, trade tariffs, and investment restrictions could lead to disagreements in economic collaboration. To address these challenges, continuous diplomatic engagement, trust-building measures, and flexible negotiation strategies will be essential.
- India's long-standing defence relationship with Russia, including reliance on Russian military hardware, poses a challenge to deeper India-US defence cooperation under COMPACT. Many of India's fighter jets, submarines, and missile systems are of Russian origin, leading to concerns over interoperability with US-made defence equipment. US sanctions on Russian defence exports through CAATSA[35] – Countering America's Adversaries Through Sanctions Act) have created friction, as India seeks to balance its partnerships without jeopardizing strategic autonomy. Addressing this challenge will require greater technology-sharing agreements between India and the US, enhanced military interoperability programs, and a long-term plan to

transition India's defence ecosystem toward diversified procurement.

- Despite COMPACT's emphasis on economic collaboration, trade barriers and market access restrictions remain significant hurdles. The US has imposed tariffs on Indian steel and aluminum exports, while India has maintained high tariffs on American agricultural and medical products, creating friction in trade negotiations. Additionally, visa restrictions on Indian tech professionals, particularly under H-1B visa policies, could limit collaboration in emerging technologies like AI, quantum computing, and semiconductor manufacturing. Addressing these trade challenges requires bilateral negotiations to reduce tariffs, ease investment regulations, and facilitate smoother movement of skilled professionals.
- The geopolitical landscape in the Indo-Pacific region is increasingly volatile, with risks such as China's assertiveness, tensions over Taiwan, and conflicts in South Asia potentially impacting COMPACT's success. India's ongoing border tensions with China and its complex relationship with Pakistan may require strategic recalibrations that could impact India-US defence cooperation. The global crises such as the Russia-Ukraine war and instability in the Middle East could shift US foreign policy priorities, affecting long-term commitments to COMPACT. To navigate these risks, India and the US need to maintain a flexible, adaptive strategic framework that accounts for evolving geopolitical realities.
- The increased exchange of critical technology and defence intelligence under COMPACT raises concerns about cybersecurity risks and data protection. Cyber espionage threats from state-sponsored actors, particularly from China and Russia, pose a major challenge to securing sensitive data related to defence, AI, and quantum computing collaboration. India's data localisation policies and differences in cybersecurity regulations between the two nations could slow down digital and technological integration efforts. To mitigate these risks, both countries must establish robust cybersecurity protocols, enhance intelligence-sharing mechanisms, and align data protection laws to ensure secure cooperation.
- Domestic political factors in both India and the US could also impact COMPACT's effective implementation. In the US, shifts in administration policies following elections may lead to changes in defence cooperation, trade agreements, and technology-sharing initiatives. Similarly, in India, concerns over strategic autonomy and non-alignment policies may limit the extent of dependence on US partnerships. The public sentiment and political opposition in both nations could influence the pace of collaboration. To address these concerns, consistent bipartisan support, public awareness campaigns, and engagement with industry and academic stakeholders will be crucial to ensuring the long-term success of COMPACT.
- To ensure the long-term success of the COMPACT Framework, India and the US must work towards greater policy alignment in defence, trade, and technology. Establishing bilateral agreements on technology transfers, defence co-production, and market access will create a stable policy environment that encourages long-term investments. Both nations should also work on harmonizing regulatory frameworks, such as export control laws, intellectual property rights (IPR) protections, and foreign direct investment (FDI) norms, to facilitate smoother collaboration. Maintaining high-level diplomatic dialogues and institutionalised mechanisms, such as annual summits and strategic working groups, will ensure continued policy coordination and adaptability to emerging global challenges.
- A key policy measure to ensure the success of COMPACT is the formalization of defence collaboration through structured agreements. Expanding existing defence frameworks, such as the Basic Exchange and Cooperation Agreement (BECA), Communications Compatibility and Security Agreement[36] (COMCASA), and Industrial Security Agreement (ISA), will enhance military interoperability and intelligence sharing. Both countries should establish a long-term roadmap for joint defence production, enabling Indian industries to integrate with US defence supply chains. Facilitating co-development and co-production of critical defence technologies, including fighter jets, missile systems, and cyber defence capabilities, will further deepen military collaboration under COMPACT.

The Road Ahead

- For COMPACT to thrive, both India and the US must address trade barriers and market access challenges. Policy measures such as reducing tariffs on key imports and exports, easing investment restrictions, and streamlining customs procedures will create a more conducive environment for businesses. Strengthening bilateral investment treaties and offering

preferential trade agreements can further incentivize private sector participation. Establishing a dedicated trade dispute resolution mechanism under COMPACT will help mitigate conflicts over tariffs, intellectual property, and taxation policies, ensuring predictability and stability in economic ties.

- One of the key objectives of COMPACT is to create secure and resilient supply chains, particularly in semiconductors, rare earth minerals, and defence manufacturing. To achieve this, India and the US must implement policy initiatives that encourage supply chain diversification, reducing reliance on China and other geopolitically sensitive regions. Joint investments in semiconductor fabrication, lithium and rare earth mineral processing, and pharmaceutical production will help strengthen self-reliant and secure trade networks. Establishing an India-US Supply Chain Security Task Force can facilitate policy coordination and prevent disruptions caused by geopolitical tensions or economic shocks.
- To ensure COMPACT's long-term success, both nations must establish joint research and innovation hubs focusing on artificial intelligence (AI), quantum computing, cybersecurity, space technology, and clean energy. Policy measures should promote joint intellectual property ownership, government-backed R&D grants, and academic-industry collaborations to accelerate breakthroughs. Establishing technology-sharing agreements and reducing restrictions on dual-use technologies will further strengthen India's access to advanced innovations. Additionally, both nations should align data privacy and cybersecurity laws, ensuring the secure exchange of critical technological information.
- Given the increasing cybersecurity threats to defence, trade, and critical infrastructure, COMPACT must include robust policies to enhance digital resilience. Establishing a joint Indo-US Cybersecurity Task Force will enable real-time intelligence sharing, cyber threat monitoring, and coordinated response mechanisms. Further, harmonising data localisation policies, encryption standards, and cloud computing regulations will facilitate a secure digital ecosystem for businesses and defence institutions. Both nations must also work together to develop global norms for cybersecurity and ethical AI governance, positioning India and the US as leaders in responsible technology deployment.
- As the Indo-Pacific remains a focal point for geopolitical tensions, COMPACT must incorporate strong maritime security policies. Enhancing joint naval exercises, information-sharing mechanisms, and logistical support agreements will ensure a strong deterrence against regional threats. Establishing formal defence cooperation mechanisms with Quad nations (US, India, Japan, Australia) and strengthening partnerships with ASEAN, South Korea, and European allies will further enhance regional security under COMPACT. Both nations should push for a Free and Open Indo-Pacific (FOIP) policy framework, promoting freedom of navigation, respect for territorial sovereignty, and adherence to international maritime laws.
- To sustain COMPACT in the long run, it is crucial to build political and public consensus in both countries. Policy measures should focus on engaging lawmakers, think tanks, and industry leaders to ensure bipartisan support in the US Congress and Indian Parliament. Public awareness campaigns highlighting the economic, security, and technological benefits of COMPACT will also foster greater public endorsement. Regular bilateral dialogues involving political leaders, defence officials, and business communities will ensure that COMPACT remains a high-priority strategic partnership, regardless of political transitions in either country.

Results

The research findings indicate that the COMPACT Framework significantly enhances India-US strategic ties by strengthening defence cooperation, expanding trade relations, and fostering technological collaboration. The study reveals that the COMPACT builds upon existing agreements such as COMCASA, BECA, and LEMOA, leading to improved military interoperability, intelligence sharing, and joint operational capabilities in the Indo-Pacific region. In the economic domain, the framework has the potential to boost bilateral trade and investment, addressing regulatory challenges and supply chain vulnerabilities, especially in semiconductors, clean energy, and digital infrastructure. Moreover, COMPACT has accelerated partnerships in emerging technologies such as AI, cybersecurity, quantum computing, and space exploration, reinforcing India's Make in India and Atmanirbhar Bharat initiatives. Geopolitically, the framework positions India and the US as key players in regional security, strengthening alliances like the Quad to counter rising challenges in the Indo-Pacific. However, the study also identifies

key challenges, including regulatory bottlenecks, intellectual property concerns, and geopolitical sensitivities, which must be addressed to maximise COMPACT's long-term effectiveness. Policy recommendations suggest deeper engagement in technology transfer, defence co-development, and institutional frameworks to ensure sustained collaboration and mutual strategic benefits.

Discussion

The findings of this study underscore the strategic significance of the COMPACT Framework in reinforcing India-US bilateral ties across defence, trade, and technology. The framework serves as a cornerstone for military collaboration, enhancing operational synergy, intelligence sharing, and exchange of defence technology through agreements like COMCASA, BECA, and LEMOA. This deeper cooperation aligns with the broader Indo-Pacific strategy, countering security threats and ensuring regional stability amidst evolving geopolitical challenges. Economically, COMPACT has the potential to streamline trade policies, reduce barriers, and expand investment opportunities in critical sectors such as semiconductors, clean energy, and infrastructure development. In the realm of technology, the framework strengthens joint research and development in AI, cybersecurity, quantum computing, and space exploration, positioning both nations as leaders in next-generation innovations. However, challenges such as regulatory constraints, trade protectionism, and geopolitical complexities require sustained diplomatic engagement and policy alignment. Moreover, balancing national security interests with technology transfer agreements and supply chain resilience remains a crucial aspect of effective implementation. Going forward, greater institutional cooperation, policy harmonisation, and private-sector engagement will be essential in realising the full potential of COMPACT and ensuring a mutually beneficial partnership between India and the US.

Conclusion

The COMPACT Framework represents a strategic milestone in India-US relations, fostering deeper cooperation in defence, trade, and technology. By building upon existing agreements such as COMCASA, BECA, and LEMOA, COMPACT enhances military interoperability, intelligence sharing, and regional security, particularly in the Indo-Pacific. Economically, it paves the way for stronger trade ties, investment growth, and supply chain resilience, addressing critical challenges in semiconductors, clean energy, and digital infrastructure. The framework also accelerates technological innovation through collaborations in AI, cybersecurity, quantum computing, and space exploration, reinforcing India's Atmanirbhar Bharat initiative while promoting joint research and development. However, effective implementation requires overcoming regulatory barriers, geopolitical sensitivities, and intellectual property concerns. Moving forward, sustained diplomatic engagement, policy alignment, and private-sector participation will be essential to maximizing COMPACT's impact, ensuring a resilient, future-ready partnership between India and the US that contributes to global stability and technological leadership.

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