



IMPORTANCE OF WEST BENGAL AND NORTH-EAST STATE FOR PROMOTING HEALTHCARE SERVICE TRADE: A STUDY

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ABSTRACT

The Siliguri Corridor, the "Gateway to Northeast India," links India with its Northeastern states and neighboring countries such as Bangladesh, Nepal, and Bhutan. This study examines the corridor's importance and challenges using secondary data sources like books, journals, and government reports. The findings offer a roadmap for policymakers to harness the region's potential for economic growth and healthcare trade. Key recommendations include opening new trade routes, strengthening relations with neighboring countries, and enhancing infrastructure to support seamless movement of goods and people. Attracting investments to the region is crucial. The research highlights North Bengal's untapped potential in delivering advanced healthcare to international patients from countries like Bangladesh, Nepal, Bhutan, Myanmar, Africa, the Middle East, Southeast Asia, and Europe. High-demand medical specialties, including renal transplants, joint replacements, robotic surgery, and cancer treatment, offer significant opportunities for medical tourism. By positioning the Siliguri Corridor as a healthcare service hub, India can strengthen trade while

fostering regional prosperity and cooperation. Success depends on improved connectivity and Northeast development, with the corridor playing a dual role in healthcare exports and broader regional growth, transforming India's healthcare economy.

Keywords: Siliguri corridor, Healthcare service trade, Connectivity, Infrastructure, Economic Integration.

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1. Introduction

West Bengal and the Northeastern states of India hold tremendous potential for advancing healthcare service trade due to their strategic location, dense populations, robust medical infrastructure, and opportunities for cross-border collaborations. These regions, with their inherent advantages, offer a unique platform to improve healthcare accessibility, quality, and affordability, while simultaneously contributing to economic growth and regional development (Hossain, 2019). A critical element of this framework is the Siliguri Corridor (Figure 1), commonly referred to as the "Chicken's Neck," a narrow strip of land in West Bengal connecting mainland India to its Northeastern states (Goswami, 2014). Strategically positioned within the Chumbi Valley, which is part of the Tibetan Autonomous Region under Chinese administration, this corridor is bordered by Sikkim and Arunachal Pradesh to the north and Nepal, Bhutan, and Bangladesh on three sides. Its geographical significance cannot be overstated, as it serves as a vital conduit for the seven Northeastern states and acts as a gateway to Nepal and Southeast Asian nations known for their dynamic pharmaceutical and healthcare sectors (Chanda, 2002).

The Northeast region, often referred to as the "Gateway," of India comprises eight states—Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Tripura, and Sikkim—and shares borders with Bhutan, China, Myanmar, and Bangladesh. Its pivotal location makes it essential for trade, commerce, and cultural exchange between India and its neighbors. This significance is further underscored in the context of the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), a regional organization

uniting seven countries—Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand. The role of Northeast as a strategic gateway enhances engagement of India with BIMSTEC countries through initiatives like the India-Myanmar-Thailand Trilateral Highway and the Kaladan Multi-Modal Transit Transport Project, which bolster trade and promote regional prosperity (De, 2022).

Despite its advantages, the Northeast has long faced economic isolation, impeding its development. This paper argues that addressing this underdevelopment requires prioritizing the healthcare service trade. By improving connectivity through ongoing infrastructure projects in roadways, railways, and airways, the region can foster trade, facilitate economic cooperation, and improve the well-being of its 39 million residents. This study examines the existing trade dynamics, identifies critical challenges, and outlines strategies to create a thriving environment for healthcare service trade and investment, ensuring integration of the region into broader economic frameworks.



Figure 1: Chicken Neck of India (Courtesy: Wikimedia Commons)

1.1. Connectivity Details

The North-eastern states of India, due to their close geographical proximity and cultural ties with neighbouring countries in the Bay of Bengal region, play a crucial role in facilitating

connections between mainland India and its eastern neighbours (Figure 2). These states not only serve as important nodes for cross-border interactions but also enhance India's intra-regional connectivity by fostering collaboration with neighbouring countries like Bangladesh. For instance, states such as Manipur and Assam act as vital links between India and Southeast Asia. This connectivity is deeply rooted in history, dating back to the third century, when Indian ideas, artistic styles, and political systems began to integrate with Southeast Asian cultures (Chaudhury and Ghosh, 2022).

Following the colonial period, India's diplomatic ties with Southeast Asian nations reflected this historical closeness, as seen during the Bandung Conference in Indonesia (1955), where these nations supported India's proposals for peaceful coexistence (Dasgupta, 2016). However, during the Cold War, ideological differences and global tensions led to a period of isolation, diminishing these interactions. Post-Cold War, with globalization and changing geopolitical dynamics, India revitalized its relationships with Southeast Asia through the Look East Policy, which positioned the Northeast as a strategic focal point for regional connectivity. This approach was further expanded with the Act East Policy, emphasizing commerce, culture, and connectivity as the pillars of India's engagement with Southeast Asia (Palit, 2016).

The Indian government has prioritized infrastructure and economic integration in the Northeast, evident through initiatives like the Kaladan Multimodal Project, India-Myanmar rail links, and the Trilateral Highway connecting India, Thailand, and Myanmar. Policies such as Neighbourhood First and Look East, Link West aim to integrate the region into global supply chains across the Indo-Pacific. Key projects include road connectivity with Myanmar via Moreh-Tamu and cross-border trade points through integrated check posts. Bangladesh also plays a pivotal role, allowing India to use its Mongla and Chattogram ports to enhance trade with the Northeast.

The North Eastern Council (NEC) has further invested in infrastructure development, including airports, roads, and railways, solidifying the Northeast's position within the Bay of Bengal Regional Architecture. These connectivity projects highlight the importance of the region in India's efforts to strengthen economic, cultural, and trade ties with Southeast Asia and beyond.



Figure 2: Geographical proximity of North-eastern states of India with neighbouring countries.

2. REVIEW OF LITERATURE

A thorough examination of current studies related to the research topic provides a deeper understanding of the subject matter and serves as a guide for future progress.

2.1. Chicken Neck Relation with the BIMSTEC Region

The Northeastern Region (NER) of India, often referred to as a “rainbow country” for its natural beauty and diversity, holds significant geopolitical importance. This region, comprising eight states including Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim, and Tripura, is connected to the rest of India through the narrow Siliguri corridor, popularly known as the "Chicken Neck." Positioned amidst neighboring countries like Bangladesh, Bhutan, China, and Myanmar, the NER is rich in natural resources and

biodiversity (Verghese, 1996, 2006). The region's strategic location aligns it with initiatives by the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), aiming to enhance infrastructure, economic ties, and connectivity. India's Indo-Pacific Oceans' Initiative further strengthens its regional aspirations, focusing on maritime security, ecology, and trade connectivity while emphasizing a liberal and inclusive framework (Chaudhury and Ghosh, 2022; Nesadurai, 2008).

2.2. Socio-Economic Context and Healthcare Infrastructure

West Bengal, with its rich cultural history and significant role in education and healthcare, represents a stark contrast to the underdeveloped Northeastern states. The partition of 1947 left the Northeast economically delayed by decades, complicating its socio-economic progress (Rao, 2009). West Bengal's integration of traditional and modern healthcare systems, particularly through AYUSH (Ayurveda, Yoga, Unani, Siddha, and Homeopathy), offers diverse healthcare services, utilized by a significant portion of its population (Rudra et al., 2017). Conversely, the Northeastern states face challenges such as inadequate healthcare infrastructure, insufficient healthcare workers, and poor health indicators like high infant mortality and low life expectancy (Gogoi et al., 2021). These disparities highlight the urgent need for healthcare development in the Northeast to harness its potential for healthcare service trade.

2.3. Comparative Analysis of Healthcare Service Delivery

A comparative analysis between West Bengal and the Northeastern states underscores significant disparities in healthcare delivery. While West Bengal benefits from relatively better infrastructure and AYUSH integration, the Northeast lags behind, hindering its ability to engage in healthcare trade effectively. Singh (2007) identifies opportunities for healthcare trade with Southeast Asia through the Northeast but emphasizes the need to address existing healthcare challenges to capitalize on these opportunities (Singh, 2007). While West Bengal can leverage its systems for trade, the Northeast requires targeted investments and policy reforms to establish a robust healthcare framework.

2.4. Cross-Border Trade Opportunities

The dynamics of informal cross-border trade (ICBT) along the India-Bangladesh border offer unique opportunities for healthcare trade. ICBT, which includes healthcare services, has the potential to alleviate poverty and empower marginalized communities in both West Bengal and the Northeast (Brown et al., 2024). The geographical and cultural proximity between these regions and neighboring countries creates a conducive environment for cross-border

collaboration. However, achieving this requires enhanced governance, infrastructure, and market-oriented policies to facilitate trade and investment (Rao, 2009).

2.5. Healthcare Challenges and Disease Burden

Healthcare challenges in the Northeast are exacerbated by a high burden of infectious diseases such as malaria, tuberculosis, and waterborne illnesses, which demand targeted healthcare interventions (Saikia et al., 2021). Addressing these issues could generate demand for healthcare services, enhancing the region's healthcare trade potential. In West Bengal, the rising prevalence of non-communicable diseases like strokes highlights the need for improved healthcare services and trade policies (Kalita et al., 2023). These disparities call for investments in affordable and accessible healthcare to reduce the economic burden on families and promote health service trade.

2.6. Policy Implications and Recommendations

Addressing healthcare disparities in the Northeast and West Bengal requires comprehensive policy interventions. Improved healthcare facilities, workforce training, and better access to medications are essential for the Northeast (Dev and Manguin, 2021). Integrating AYUSH into mainstream healthcare can enhance accessibility and promote trade in alternative medicine⁸. Additionally, simplifying administrative processes and fostering cross-border collaborations through light-touch regulations can facilitate ICBT and boost healthcare trade¹¹. Innovative technologies like drone-based medical supply delivery could further bridge healthcare access gaps in remote areas (Aggarwal et al., 2023).

2.7. Trade Models in Healthcare Services

Promoting healthcare service trade in West Bengal and the Northeast requires diverse approaches. Competition among healthcare providers can improve service quality and accessibility, as emphasized by Chatterjee and Laha (2019). Social entrepreneurship in state hospitals can address local healthcare needs effectively. Informal cross-border trade, particularly along the India-Bangladesh border, is a vital lifeline for marginalized communities and can be facilitated by supportive regulatory frameworks (Brown et al., 2024). Technology-driven models such as Point of Care Testing (POCT) and IoT integration can enhance service delivery and efficiency, particularly in rural and underserved areas.

2.8. Promoting Health Service Trade

The promotion of health service trade is essential for economic advancement, requiring efforts to break down regional economic barriers. Global development narratives highlight the role of trade in fostering growth, innovation, and efficiency. Openness to international trade can enable the region to leverage its resources, improve living standards, and create forward

linkages within value chains (Brunner, 2010). A value-chain approach, considering physical, institutional, and geographical factors, can guide government actions to optimize healthcare trade opportunities (Brunner, 2005).

3. STUDY AREA

The study focuses on Jalpaiguri, located in the strategically important Siliguri Corridor at 26.52°N latitude and 88.73°E longitude. The region sits at an average elevation of 75 meters (246 feet) above sea level. Often referred to as the "Chicken Neck," this corridor holds immense political and economic significance, serving as a crucial link between seven northeastern states of India and the rest of the country. At its narrowest point, the corridor spans approximately 20 to 22 kilometers (12 to 14 miles), highlighting its vulnerability and importance for connectivity and security.

Siliguri, positioned within the fertile Terai plains south of the Himalayas, is enriched by the presence of numerous rivers and streams originating from the Himalayan range. Among these, the Teesta River, often referred to as the "Thames of Jalpaiguri," flows through the city, dividing it into two distinct parts. This geographical and hydrological setup not only enhances the natural beauty of the region but also highlights its strategic importance as a hub for trade, transportation, and regional development.

The study sought to analyze the role of West Bengal, particularly the Siliguri region, in promoting healthcare service trade, highlighting its potential as a gateway for fostering economic growth and providing essential services in the region (Figure 3).



Figure 3: Role of Siliguri, West Bengal in Advancing Healthcare Service Trade and Regional Economic Growth (Courtesy: Forum IAS)

4. METHODOLOGY

The methodology for this study was based on an extensive review of secondary sources. Various literary and data resources were examined to provide a comprehensive understanding of the subject matter. These included official publications and reports from the World Trade Organization (WTO), books, peer-reviewed journals, and government publications. Data and insights were sourced from the Ministry of Development of the North Eastern Region (MDONER), the Ministry of Commerce, and the Ministry of North Eastern Region (NER).

Additionally, information was collected from reliable internet-based sources and grey literature, which encompasses non-conventional publications such as reports, white papers, and working documents. This multifaceted approach allowed for a thorough exploration of the Siliguri region's potential in promoting healthcare service trade. Emphasis was placed on obtaining relevant, updated, and authoritative information to ensure the credibility and reliability of the findings. The diverse range of sources enabled a multidimensional analysis, providing a well-rounded perspective on the objectives of the study.

5. DISCUSSION

The Chicken's Neck, or the Siliguri Corridor, plays a critical role in India's connectivity with its northeastern states and neighboring BIMSTEC countries. This narrow stretch of land is strategically positioned as a vital transportation route that facilitates the movement of goods, people, and services between the northeastern region of India and the rest of the country. The Bangladesh- Bhutan- India- Nepal (BBIN) Motor Vehicles Agreement (MVA), signed in June 2015, has further emphasized the importance of the Chicken's Neck, particularly in the context of enhancing regional connectivity and facilitating cross-border trade and tourism. The agreement not only strengthens the economic ties within South Asia but also helps position West Bengal and the northeastern states as crucial hubs for healthcare services within the BIMSTEC region. West Bengal, with Kolkata as its central urban hub, serves as a gateway for the northeastern states, while the region's proximity to Bangladesh, Bhutan, Myanmar, and China enhances its potential as a healthcare service trade center. The strategic location of both West Bengal and the northeastern states allows for cross-border healthcare collaborations and medical tourism, tapping into the growing demand for quality healthcare services across the region. This potential is particularly critical given the challenges faced by the northeastern states in terms of healthcare infrastructure and access.

West Bengal, as one of India's most densely populated states, has a robust healthcare infrastructure, with renowned medical facilities and research institutions in Kolkata. These institutions attract patients not only from across India but also from neighboring BIMSTEC countries. The high population density in the state generates a continuous demand for healthcare services, which encourages both local and international healthcare providers to invest in the region. The expansion of healthcare sector is expected to create a ripple effect, benefiting related industries such as tourism, hospitality, and pharmaceuticals, and further promoting healthcare service trade in the region.

In contrast, while the northeastern states have made notable progress, their healthcare infrastructure still lags behind other parts of the country. These states face challenges in providing adequate healthcare access, with some areas grappling with insufficient medical facilities and personnel. However, the government has been making significant strides to address these issues through a combination of infrastructure development and targeted healthcare initiatives, such as the Ayushman Bharat and Pradhan Mantri Jan Arogya Yojana (PM-JAY) schemes. These initiatives not only aim to improve the accessibility and

affordability of healthcare services but also create opportunities for cross-border collaborations in the healthcare sector.

Telemedicine and digital health technologies also present considerable opportunities for bridging the geographical gaps in healthcare access in the northeastern states. The rise of digital health solutions can address the challenges posed by isolation of the region and limited healthcare facilities. By leveraging these technologies, West Bengal and the northeastern states can expand healthcare access across borders, connecting with patients in BIMSTEC countries who may not have easy access to quality healthcare in their own regions. The introduction of the Ayushman Bharat Digital Mission, which aims to integrate healthcare records and enhance decision-making processes, is a significant step in this direction.

Medical tourism is another avenue through which the northeastern states can promote healthcare service trade. The rich cultural heritage, scenic beauty, and biodiversity of the region make it an attractive destination for medical tourists seeking treatments combined with a leisure experience. By leveraging these unique assets, the northeastern states can enhance their appeal as medical tourism destinations, thereby attracting patients not only from BIMSTEC countries but also from other regions. Collaborations between the healthcare sector and the tourism industry can create a synergistic effect that stimulates both economic growth and healthcare development in the region. Additionally, the northeastern states are home to a wealth of indigenous healthcare knowledge and traditional medicine practices. Collaborations between modern healthcare providers and traditional healers can foster innovation in healthcare delivery and pharmaceutical development. By incorporating indigenous practices into the mainstream healthcare system, the region has the potential to develop unique healthcare solutions that cater to both local populations and international markets.

The ongoing efforts by the Government of India to improve healthcare infrastructure in the northeastern states, through initiatives like the PM-Devine Scheme, the establishment of AIIMS in Guwahati, and the creation of specialized cancer treatment centers, are expected to further bolster the region's capacity to serve as a healthcare hub. These initiatives not only enhance the medical infrastructure of the region but also provide employment opportunities and foster entrepreneurship within the healthcare sector.

Public-private partnerships (PPPs) are essential in accelerating healthcare service trade in the northeastern states. By encouraging collaboration between the government, private healthcare providers, and non-profit organizations, the region can improve healthcare delivery, enhance service quality, and promote capacity building. PPPs can also facilitate the transfer of

technology, knowledge, and expertise, further strengthening the healthcare ecosystem in the region.

5.1. Mind map root on SWOT Analysis of West Bengal’s Role in Healthcare Service Trade

The comprehensive SWOT analysis presented in the mind map, the "West Bengal's healthcare sector significantly contributes to the economic integration. Its geographic advantage, advanced healthcare infrastructure, and skilled workforce, combined with regional demand and opportunities in medical tourism create strong integration pathways. Technological advancements like telemedicine and digital health records further enhance this contribution. Despite challenges, the positive factors significantly outweigh them, providing strong evidence that West Bengal's healthcare sector makes substantial contributions to economic integration.

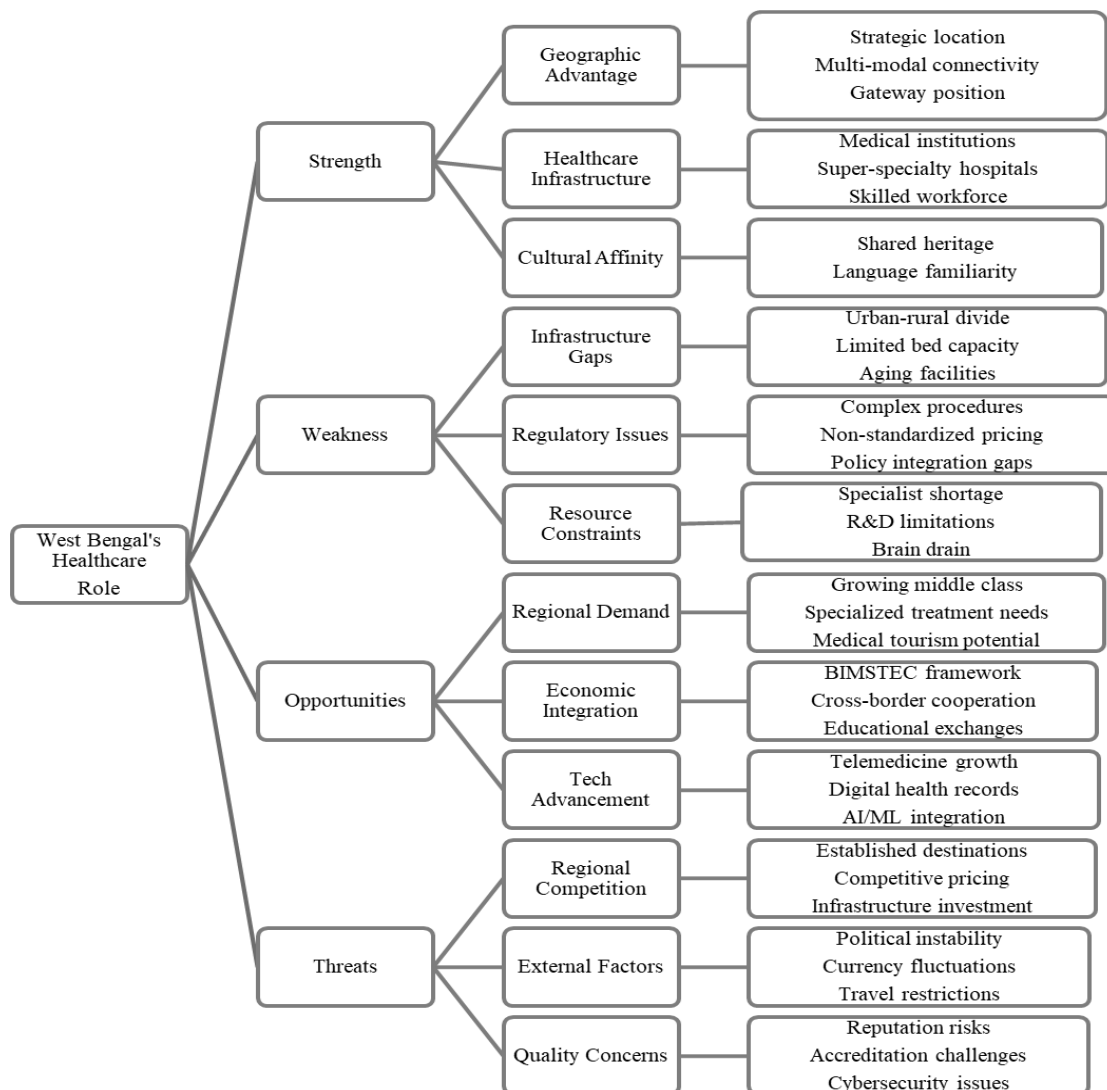


Figure 4: Role of West Bengal in Healthcare Service Trade

6. CONCLUSION

In conclusion, the role of West Bengal and the northeastern states in promoting healthcare service trade within the BIMSTEC region is crucial. Their strategic location, growing healthcare infrastructure, and potential for cross-border collaborations present significant opportunities for advancing healthcare delivery and medical tourism. While challenges remain, the ongoing efforts by the government, coupled with the region's unique assets, can help bridge the gap in healthcare access and stimulate economic growth, ultimately positioning the northeastern states as an important player in the South Asian healthcare landscape.

Conflicts of interest: All authors declare that they have no conflicts of interest.

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