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NAVIGATING COMPETITION AND COOPERATION IN MARITIME SECTOR: IMPACT ON PORT FACILITIES

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ABSTRACT

Alliances, consortia, and various types of cooperative agreements are distinct characteristics of the shipping and maritime sectors. It appears from the façade that it only affects carriers, shippers, and other significant actors directly involved in shipping. However, such practices of maintaining competition and cooperation in this significant sector actively affect other logistic facilities as well, and one of it is terminals and port facilities and competition amongst them. Therefore, this paper aims to drive away from the idea of conceptualizing port competitiveness from apparent factors like infrastructure quality, cost, efficiency, etc, to unfound and layered factors like cooperative agreements amongst liners and other maritime players that too affect intra-port and inter-port competition and affect facilities provided by them. In order to facilitate smooth trade, this tension of competition and cooperation in the maritime sector also renders the same stress to terminals regarding cooperation and fair-trade facilities. Ports must integrate logistics chains and processes to function as transportation gateways. Coordination between competing port users is crucial for port-oriented supply chains' efficacy. The effectiveness of port communities depends on the engagement of competition-inhibiting organizations. Cooperation often fails spontaneously, and the connection between cooperation and competitiveness is complex. This paper, thus, explores competitive dynamics within container ports.

Keywords: Ports, Terminals, Competition, Intra-port competition, Inter-port competition, cooperative agreements, maritime sector

RESEARCH OBJECTIVE

1. To evaluate the influence of the interplay between applied cooperation and competition in maritime sector and its significant impact on port facilities.

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METHODOLOGY

Doctrinal and analytical methods are used to analyse in detail the complex interactions between competition and cooperation in the maritime industry, with a focus on their impact on ports. This study will take a conceptual approach to the laws, principles and guidelines governing competition and cooperation in the maritime industry. It will examine international maritime law, and regulations regarding cooperative arrangements between maritime transport and port authorities.

This study seeks to identify regulatory frameworks and constraints in order to provide a good basis for understanding the impact of maritime operators and stakeholder on port competition. The method used in this study will collect and analyse in detail the port situation, competitive interactions and operational methods. This method will perform an in-depth analysis of qualitative data to identify trends and links between competition, collaboration and the results produced by ports.

INTRODUCTION

Investors enter the market when they compete for the right to manage a port or terminal. Once they secure that concession, they compete with other terminals serving the same area. As ports increasingly evolve into parts of the global supply chain, the focus of terminal management has become more competitive, with private investors looking to exploit the advantages of port operations.[1] This landscape of competition is marked with tension between shipping lines and terminal operators' cooperative agreements and alliances that can greatly shape intra and inter possession activities.[2] Finally, the competition for control of major ports and terminals plus all the activities within is in line with what is happening in most sectors of the maritime industry, where there is a growing need to make strategic investments and forge alliances in order to improve productivity and the level of service offered to customers.

[1] Dr Theo Notteboom et al., *Inter-Port Competition*, *in* Port Economics, Management and Policy, 2022, https://doi.org/10.4324/9780429318184 (last visited Nov. 1, 2024)..
[2] [2] Luo, H. (2013). *An Analysis of Port Competitiveness through User's Perception Measurement* [Master's thesis, Erasmus University]. Erasmus University Thesis Repository. https://thesis.eur.nl/pub/33045/Luo-H.-An-Analysis-of-Port-Competitiveness-through-User-s-Perception-Measurement.pdf

Governments often grant them concessions so that they can retain some control over the organization and structure of the supply side of the port market.[3] As a result, they might prefer vertically integrated companies, meaning they also offer cargo transportation services, making it more likely for them to use the terminal as a transfer point. For example, the port of Piraeus in Greece awarded concessions to COSCO (China), one of the largest shipping companies in the world.[4] This company not only transported its own goods but also significantly increased its connections to both the surrounding areas and other international markets.[5]

However, if transportation providers are both horizontally and vertically integrated, the options available to transporters are limited. For instance, when Maersk acquired Hamburg Süd, it took over previously directed services to independent terminals in places like Buenos Aires, Argentina, and Callao, Peru. APM Terminals, part of Maersk's group, operates some terminals.[6] This acquisition reduced the number of shipping lines available and limited terminals' choices.[7]

Due to such cooperative and strategic moves by maritime sector stakeholders, the smaller economies, especially those on islands or without large hinterlands, often lack the necessary infrastructure to support multiple terminals or attract various operators.[8] Therefore, governments may need to strengthen their regulatory frameworks to prevent monopolistic pricing in these cases.

THE DYNAMICS OF COMPETITION AND COOPERATION

- **Coordination agreements by Shipping liners and their impact on port facilities**

Collaborations and cooperation characterize the maritime sector or the shipping industry. In order to facilitate cheap and smooth trade, a lot of cooperative activities take place between the

[3] Dr Theo Notteboom et al., *Terminal Concessions and Land Leases*, *in* Port Economics, Management and Policy, 2022, https://doi.org/10.4324/9780429318184 (last visited Nov. 1, 2024)..
[4] Consolidation and competition in container shipping, in Review of Maritime Transport 135, (2022), https://doi.org/10.18356/9789210021470c011.
[5] *Maersk to acquire Hamburg Süd - Tea & Coffee Trade Journal*. (2016, December 1). Tea & Coffee Trade Journal. https://www.teaandcoffee.net/news/1120/maersk-acquire-hamburg-sud/
[6] . Moller, Maersk Annual Report 2017, at (2018), https://investor.maersk.com/system/files-encrypted/nasdaq_kms/assets/2018/04/25/13-00-21/A.P._Moller_-_Maersk_Annual_Report_2017.pdf.
[7] Longman, N. (2020, May 18). *Maersk is buying Hamburg Süd – here's what you need to know*. Home of Supply Chain News | Supply Chain Magazine. https://supplychaindigital.com/logistics/maersk-buying-hamburg-sud-heres-what-you-need-know
[8] Luo, H. (2013). *An Analysis of Port Competitiveness through User's Perception Measurement* [Master's thesis, Erasmus University]. Erasmus University Thesis Repository. https://thesis.eur.nl/pub/33045/Luo-H.-An-Analysis-of-Port-Competitiveness-through-User-s-Perception-Measurement.pdf

stakeholders of this sector, including shipowners, shipping companies, port authorities, and logistic providers, to drive operational efficiency. Thus, such cooperation takes place in various combinations.

Ports and terminals are collaborating with shipping companies and logistics providers to create smart ports. These hubs leverage to streamline operations, reduce congestion, and minimize environmental impact. In a concentrated market where shipping companies operate on many of the same routes, use the same ports, and belong to the same trade associations, there are likely to be more "points of contact" compared to a market that is highly fragmented and diverse. When there are fewer competitors, each holding a significant share of the market, it becomes easier for these companies to coordinate their actions and perform concerted practices with their favored port operator. This benefits them by providing better shipping services to the shippers. This concentration in the liner shipping market can enhance "contact" among carriers, thus directly affecting the port action and facilities.

However, while such cooperative agreements between carriers and shippers have allowed higher port efficiencies and stable income to sea routes, they have also caused peripheral ports to drive off from the market due to competition from hub ports created by such same-route cooperation agreements.[9]

Also, if alliances formed by hefty ship liners operate as monopolies or oligopsony, smaller regional services may struggle to negotiate favorable terms due to their limited bargaining power. Carriers frequently adjust their liner networks by adding or removing ports based on strategic needs. The liner shipping industry may therefore promote "contact" because to its supply-side concentration, substantial entry obstacles, and uniform services provided. Various interpretations of the term "contact" are also apparent in national instances. The consolidated cases of Replica Kit & Toys and Games before the British Court of Appeal exemplify the intricate 'contact'-consideration.[10] The court reasoned that if retailer disclosed information to supplier, intending to relay that information to another retailer, then all three parties would be considered participants in a concerted practice.

Container shipping lines have been actively engaged in the acquisition of dedicated terminal capacity in strategic locations within their liner service networks. A shipping line is a

[9] Elena A. Lezhnina & Yulia E. Balykina, *Cooperation between Sea Ports and Carriers in the Logistics Chain*, 9 J. Marine Sci. & Eng'g 774, (2021), https://doi.org/10.3390/jmse9070774.
[10] Argos & Littlewood v OFT & JJB Sports v OFT, The Supreme Ct. Of Judicature Ct. Of Appeal (Civil Div.), Oct. 19, 2006, 2005/1071, EWCA, at 141 (U.K.),

shareholder in a significant number of container terminals worldwide, primarily through their terminal sibling companies. Examples include Terminal Link of CMA CGM (51% shareholding), Cosco Shipping Ports of the Cosco group (100%), TIL of MSC (60%), and APM Terminals of the AP Moller group (100%).[11]

The Kerala High Court in the case of **Container Shipping Lines vs. Union of India (2020)[12]** addressed issues related to such anti-competitive practices in the liner shipping sector. The court's decision highlighted the complexities of coordination among shipping lines and its implications for port operations, suggesting that such arrangements could lead to monopolistic behaviors that ultimately affect service levels at ports.

Also, in a recent consultation by the UK Competition and Markets Authority (CMA), concerns were raised about the negative outcomes of consortia agreements, including potential connectivity losses and rate increases for users of liner shipping services.[13] The CMA's findings suggest that while coordination can lead to operational efficiencies, it may also adversely affect port facilities by reducing competition and connectivity

Thus, findings surrounding the liner shipping industry illustrates a dual perspective: while coordination among shipping lines can lead to enhanced operational efficiencies and better utilization of port facilities, it also raises significant concerns about competition and service quality. Regulatory bodies continue to monitor these dynamics to ensure that the benefits of cooperation do not come at the expense of fair competition and effective port operations.

- **Impact of coordination amongst port service providers on port facilities and governance**

  Intra-port competition refers to the rivalry between multiple service providers operating within the same port, including terminal operators, logistics firms, and ancillary service providers. The coordination and cooperative agreements among these entities can significantly impact competition, operational efficiency, and service delivery. These collaboration often manifests through public-private partnerships (PPP), alliances, and regulatory frameworks that shape how ports operate and interact with shipping lines.

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[11] Dr Theo Notteboom et al., Ports and Container Shipping, *in* Port Economics, Management and Policy, 2022, https://doi.org/10.4324/9780429318184 (last visited Nov. 1, 2024)
[12] Container Shipping Lines vs. Union of India, Kerala High Ct., Mar. 11, 2020, WP(C). No.7435 OF 2020(D), (India).**)**
[13] CMA172con, UK COMPETITION LAW: LINER SHIPPING CONSORTIA BLOCK EXEMPTION, Competition and Markets Authority Final Report, at 19 (2024).

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Each type of service provider plays a crucial role in shaping the competitive landscape of ports:

1. Terminal Operators

   Terminal operators are crucial players in intra-port competition. Container terminals in ports with multiple operators encounter two opposing pressures: a) the necessity to compete with one another (intra-port competition), and b) the imperative to cooperate, as they share an interest in the efficiency and competitiveness of their port relative to other competing ports.[14]

   When multiple terminal operators exist within a port, they compete for shipping lines and cargo, which can lead to lower prices and improved service quality. However, if coordination among terminal operators occurs through agreements that limit competition, it can result in monopolistic practices

   The Australian Competition and Consumer Commission (ACCC) appealed a Federal Court decision regarding NSW Ports Operations Hold Co Pty Ltd, which involved the Port Commitment Deeds. The ACCC argued that these agreements were anti-competitive as they effectively prevented the development of competing terminals at the Port of Newcastle for 50 years. The court initially ruled that these agreements did not have an anti-competitive purpose, but the ACCC contended that they were designed to protect existing monopolies at Port Botany and Port Kembla from future competition.[15]

2. Logistic Providers

   Logistics providers enhance intra-port competition by offering integrated services that connect ports with hinterlands. Their presence encourages terminal operators to improve their services to attract more business. However, if logistics firms form alliances with terminal operators to create exclusive contracts, it can reduce competition and limit options for shippers.

   In the case of Paradip International Cargo Terminal Pvt. Ltd. (PICTPL) v. Paradip Port Trust, the Orissa High Court addressed issues related to a concession

[14] R.B. Castelein et al., *The ostensible tension between competition and cooperation in ports: a case study on intra-port competition and inter-organizational relations in the Rotterdam container handling sector*, 4 J. Shipping & Trade, 7 (2019), https://doi.org/10.1186/s41072-019-0046-5.
[15] Press Release, ACCC appeals in NSW Ports competition case, 112/21, (July 27, 2021), https://www.accc.gov.au/media-release/accc-appeals-in-nsw-ports-competition-case.

agreement under a Public Private Partnership (PPP).[16] The court ruled in favor of PICTPL's rights to enforce maritime liens against vessels for unpaid dues, reinforcing the importance of competitive agreements in ensuring that logistics providers can operate effectively within port frameworks.

3. Ancillary Service Providers

Ancillary service providers, such as tugboat services and pilotage companies, play a vital role in port operations. When multiple providers compete for contracts within a port, it can lead to better pricing and service levels. Conversely, if coordination leads to price-fixing or market allocation agreements among these providers, it can harm competition.

Regulatory frameworks often govern ancillary services to prevent anti-competitive practices. For example, in many jurisdictions, pilotage is regulated to ensure safety while preventing monopolistic behaviors. Regulatory bodies may intervene when there is evidence of collusion among service providers that restricts market access or inflates prices.

In a case involving the Port Authority of Pohnpei, the court examined whether the authority exceeded its regulatory powers by restricting pilotage services for vessels with overdue accounts. The court upheld the authority's right to regulate access to ports, emphasizing that port authorities can impose penalties and deny entry to vessels based on their financial obligations.[17] This case illustrates how regulatory frameworks can restrict cooperation by enforcing compliance among shipping companies.

A study of intra-port competition in Rotterdam is the best reference to how coordination and competition between port service facilitator can develop issues along with efficiency. Case illustrates tensions between competition and cooperation among terminal operators. One operator claimed damages from the Port Authority for perceived unfairness in granting concessions to new

[16] Aakanksha Joshi & Tripti Sharma, *Navigating Legal Waters: Rights and Remedies for Indian Ports and Terminals*, S&R Associates: Navigating Legal Waters: Rights and Remedies for Indian Ports and Terminals (Oct. 10, 2024), https://www.snrlaw.in/navigating-legal-waters-rights-and-remedies-for-indian-ports-and-terminals/.

[17] *Ports and Harbours Case Summaries,* Pacific Islands Legal Information Institute, http://www.paclii.org/libraries/maritime_law/case-summaries-ports-and-harbours/index.html.

competitors.[18] The situation underscores how competitive dynamics can hinder collaborative efforts among terminal operators, affecting overall port performance Evolving ownership structures of ports and logistics service providers, the presence of international consortiums/alliances, strong regional and locational players, the presence of trade unions in ports and port-related infrastructure and significant market fragmentation require formal agreements or extensive arrangements throughout the logistics value chain. Some practices that may attract the attention of regulators and bring regulatory scrutiny are:

– Restrictions on volume discounts if a ship uses another port

– Collusion with shipping lines and other service providers to set prices for the end consumer

– Bundling of services by companies operating ports and shipping lines

– Other issues such as denial of equal port infrastructure to all shipping lines, imposition of minimum service volumes and collusion with shipping lines to exercise territorial exclusivity.

Overall, while there is considerable evidence to support the view that coordination in the liner shipping industry has a positive impact on port facilities through improved efficiency and resource management, there are also significant challenges related to regulatory scrutiny and potential anti-competitive practices. This duality highlights the complexity of relationships in maritime logistics, where effective coordination is critical but must be balanced with legal and competition considerations.

- **Effect of Inter-port competition**

Inter-port competition refers to the rivalry among different ports to attract shipping lines, cargo, and logistics services. This competition significantly affects port facilities, operational efficiencies, and the overall success of the maritime sector. However, when inter-port competition is influenced by anti-competitive practices, it can undermine the sector's growth

[18] R.B. Castelein et al*., The ostensible tension between competition and cooperation in ports: a case study on intra-port competition and inter-organizational relations in the Rotterdam container handling sector,* 4 J. Shipping & Trade, (2019), https://doi.org/10.1186/s41072-019-0046-5.

and sustainability. Thus, there is impact of inter-port competition on port facilities and can hinder the maritime industry's success.

As ports compete for business, such heat of competition incentivizes them to improve operational efficiencies. This can lead to reduced turnaround times for vessels and lower costs for shippers. Ports that fail to adapt may lose business to competitors that offer better services or lower fees. For example, ports in Singapore and Hong Kong have continually upgraded their infrastructure to maintain their status as leading global shipping hubs.
The European Commission's decision to allow the expiration of the Consortia Block Exemption Regulation (CBER) indicates a shift towards greater scrutiny of inter-port competition. The CBER previously allowed certain cooperative agreements among shipping lines, which could stifle competition among ports. Its expiration encourages ports to differentiate themselves through improved services rather than relying on anti-competitive agreements. [19]

However, intense competition may result in overcrowding, environmental concerns, and strains on existing infrastructure. [20] Overcrowding at busy ports due to increased activity may lead to delays and inefficiencies. And rapid expansion to compete may overlook environmental considerations. Thus, meeting the demands of increased competition may strain existing infrastructure.

The maritime sector faces significant challenges due to anti-competitive practices. These include diminished innovation, which can lead to complacency and lack of competitive pressure, and increased costs for shippers. These practices, such as collusion among service providers, can lead to inflated prices, which are passed down the supply chain, affecting consumers and increasing goods prices. The revocation of certain antitrust exemptions in Europe reflects a trend towards increased scrutiny of anti-competitive practices in shipping.[21] This shift emphasizes the importance of maintaining a competitive environment to foster innovation and manage shipping costs. Addressing these challenges is crucial for the long-term success and sustainability of the maritime industry.

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[19] Aditya Trivedi & Vanshika Arora, *Navigating the Choppy Waters of Anti-trust Regulation in the Maritime Industry - IndiaCorpLaw*, (Mar. 1, 2024), https://indiacorplaw.in/2024/03/navigating-the-choppy-waters-of-anti-trust-regulation-in-the-maritime-industry.html.
[20] Competition in Ports and Port Services XXXX (2011), https://doi.org/10.1787/79d9549e-en.
[21] G.R. Bhatia & Toshika Soni, *Increased Antitrust Scrutiny Of The Ship Lining Industry: Tailwinds Of Global Convergence*, Mondaq: (Feb. 8, 2024), https://www.mondaq.com/india/antitrust-eu-competition/1422144/increased-antitrust-scrutiny-of-the-ship-lining-industry-tailwinds-of-global-convergence.

In summary, inter-port competition significantly influences the availability and quality of port facilities. Anti-competitive practices can lead to a lack of investment and innovation, increased costs for shippers, and ultimately result in underdeveloped port infrastructure. Regulatory oversight is essential to ensure that competition remains fair and that ports are incentivized to invest in their facilities for sustained growth and improved service delivery. Addressing these issues is crucial for fostering a robust maritime sector capable of meeting global trade demands.

CASE STUDY OF PARADIP PORT

Paradip Port, located in Odisha, India, has become one of the country's busiest major ports since its inception in 1967. It primarily handles bulk cargoes such as iron ore, coal, and crude oil. This case study examines how inter-port competition and collaboration among various service providers have impacted port facilities at Paradip Port.

Inter-port competition plays a crucial role in shaping the operational dynamics of Paradip Port. The port competes with neighbouring ports such as Visakhapatnam, Dhamra, Kakinada, and Haldia, prompting Paradip Port to enhance its facilities and services to attract shipping lines and cargo. To remain competitive, Paradip Port has invested heavily in infrastructure upgrades, such as the ongoing West Terminal project aiming to add 25 million metric tons of capacity and enable the port to handle fully laden capsize vessels by 2026.[22]

Mechanization and efficiency are also critical to enhancing service delivery at Paradip Port. The Port Authority works with shipping lines, logistics companies, and terminal operators to improve operational efficiency. Public-Private Partnership (PPP) arrangements have been implemented, such as Paradip International Cargo Terminal Private Limited (PICTPL) having a long-term concession agreement with Paradip Port Trust (PPT), which enabled PICTPL to develop a multi-purpose berth on a build-operate-transfer basis.[23]

However, Paradip Port faces challenges related to anti-competitive behavior in the maritime sector. Recent changes in India's competition laws have increased scrutiny of anti-competitive agreements in the maritime sector, which poses challenges for ports like Paradip Port. Market

[22] Press Release, Paradip Port Authority Hosts Awards Night 2024, Celebrates Record-Breaking Achievements. (Sept. 24, 2024).
[23]Press Release, Paradip International Cargo Terminal Private Limited Pg. 2 (Sept. 5, 2024), https://www.careratings.com/upload/CompanyFiles/PR/202409160923_Paradip_International_Cargo_Terminal_Private_Limited.pdf.

volatility and the lack of long-term agreements expose the terminal to the risk of fluctuations in cargo volumes, which affect profitability and investment capacity.

Several case laws highlight the competition issues faced by Paradip Port:

Dumper Owners Association[24] (2015): In this case, the CCI fined the Dumper Owners Association for cartelization, price fixing and control of the supply of dumpers at Paradip Port. The CCI found that such practices restricted competition in the port logistics sector and led to inflated costs for shippers.

PITCTL v Vessel[25]: In a maritime suit filed by PICTPL against a vessel for non-payment of berth rent, the Orissa High Court held that PICTPL had established a prima facie case to exercise a maritime lien on the vessel despite arguments regarding directness of the contract. The ruling highlights the legal complexities of concession agreements under the PPP framework and how competitive pressures in port operations can give rise to disputes.

Competition Law Compliance: Anti-competitive agreements such as collusion or exclusive dealing contracts between service providers are prohibited under the Competition Act, 2002[26]. Recent CCI reviews of various maritime operators indicate a growing focus on ensuring compliance with competition laws to prevent monopolistic practices that could harm ports such as Paradip.

Hence, Paradip Port exemplifies the interplay between competition and cooperation in the maritime sector. While coping with inter-port competition from neighbouring facilities, it continues to invest in infrastructure development and mechanisation to enhance its service offerings. However, challenges remain as regulatory scrutiny seeks to curb anti-competitive practices that could undermine fair competition in the industry. As Paradip Port seeks to continue its success, balancing competitive strategies with collaborative frameworks will be critical to maintaining its leading position in the Indian maritime sector while effectively addressing legal challenges related to competition issues.

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[24] *Swastik Stevedores Pvt. Ltd. v. Dumper Owner's Ass'n, Competition Comm'n of India*, Jan. 21, 2015, 42 of 2012, (India), https://www.cci.gov.in/antitrust/orders/details/730/0.

[25] Paradip Int'l Cargo vs M.V. Debi, Orissa High Ct., Feb. 23, 2024, I.A No.1 of 2024, SCC OnLine, 1058, at 33 (India).

[26] Aakanksha Joshi & Tripti Sharma, *Navigating Legal Waters: Rights and Remedies for Indian Ports and Terminals*, S&R Associates: Navigating Legal Waters: Rights and Remedies for Indian Ports and Terminals (Oct. 10, 2024), https://www.snrlaw.in/navigating-legal-waters-rights-and-remedies-for-indian-ports-and-terminals/.

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CONCLUSIONS & SUGGESTIONS

The maritime industry is a complex mix of competition and cooperation, especially when it comes to port facilities. It's contended that inter-organizational ties within a port exist on a continuum between competition and collaboration. Excessive collaboration is detrimental; an overly collaborative setting diminishes efficiency due to a deficiency of competition. Intense rivalry may adversely affect inter-organizational interactions to the extent that essential collaboration in certain domains is obstructed.[27] Regarding the container handling business experiences enhanced efficiency due to competition among a port's terminals. However, when competition and rivalry impede cooperation, this undermines the performance of the port.

For the same, the Major Port Authorities Act, 2021[28] in India outlines the powers of port authorities and their ability to enter into concession agreements with private operators. These agreements are designed to foster cooperation while ensuring that public interests are safeguarded. The Act also provides mechanisms for dispute resolution, which is essential for maintaining governance integrity in port operations.

To ensure the same certain efforts needed to be taken are –

1. Strengthening the regulatory framework: The government should strengthen the regulatory framework to prevent anti-competitive behavior among port service providers. This includes imposing stricter guidelines on collaboration agreements and monitoring mergers and acquisitions that could lead to monopolistic behavior. Regulators such as the Competition Commission of India (CCI) should be empowered to investigate and effectively punish anti-competitive behavior.

2. Monitoring market dynamics: Continuous monitoring of market dynamics is essential to better understand the competitive landscape. Ports should regularly assess their competitive position with neighbouring facilities and adjust their strategies accordingly.

3. Involve stakeholders in policy making: Involving stakeholders, including shipping lines, logistics providers, and local communities in policy making can lead to more effective regulations that reflect the needs of all parties involved in port operations.

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[27] R.B. Castelein et al., *The ostensible tension between competition and cooperation in ports: a case study on intra-port competition and inter-organizational relations in the Rotterdam container handling sector*, 4 J. Shipping & Trade, 7 (2019), https://doi.org/10.1186/s41072-019-0046-5.
[28] Major Port Authorities Act, 2021, Act No. NO. 1 OF 2021 (2021) (India)

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Port State Control (PSC) is one such critical aspect of governance that ensures compliance with international maritime regulations. Coordinated PSC efforts among countries can streamline inspections and improve safety standards across ports. By harmonizing inspection regimes, ports can avoid redundant checks while ensuring that substandard vessels are identified and addressed effectively.[29] This coordination not only enhances safety but also promotes fair competition among ports.

Thus, a balanced environment where competition drives innovation and cooperation improves service quality is essential for sustainable mar

[29] *Port State Control*. (n.d.). International Maritime Organization. https://www.imo.org/en/OurWork/IIIS/Pages/Port%20State%20Control.aspx