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Port connectivity in Asia: A case study on the Hub and Spoke Model for Port Klang and Chattogram Port

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ABSTRACT

Port Klang, Malaysia, and Chattogram Port, Bangladesh are ranked among the 100 busiest container ports in the world by following their port throughput in a year by Lloyds List. Bangladesh's premier seaport Chattogram is well connected to Asian major "Hub" ports such as Singapore, Port Klang, and Colombo for international container trade and plays the role of "Spoke" actively. A quantitative data analysis method is applied to get the scenarios of vessels calling between two ports and carrying containers to understand the gaps, obstacles, and management issues for augmenting shipping services and arranging seamless connectivity. In a selected monthly throughput data analysis of Chattogram Port, it is explored that the direct contribution of Port Klang to Chattogram Port is 19% only whereas jointly with Port of Tanjung Pelepas is 30%. Two other major findings are the absence of a bilateral contract between Bangladesh and Malaysia especially Chattogram Port and Port Klang for exclusive facilities such as priority berthing, reduced charges, flag-vessel sharing, etc., and port choice of MLO (Main Line Operator) and NVOCC (Non-Vessel Operating Common Carrier) to select Port Klang as Hub to connect with the Spoke Chattogram Port regularly. These findings would benefit port authorities, feeder operators, port users, and others in making strategic port choice decisions. Overall, this paper aims to recommend improvements to the port connectivity between Port Klang and Chattogram Port to fit the "Hub and Spoke Model" for developing a long-term relationship, increasing the number of vessels and containers as well as decreasing container freight and vessel operating costs significantly.

1. Introduction.

Chattogram Port plays a vital role in the container shipping business as it reached 3 million clubs of the busiest container ports in the world. In most of the hub ports in Asia, Chattogram became a profitable spoke for Port Klang of Malaysia and has a nice competition with the domestic Port of Tanjung Pelepas as well as the regional Singapore Port and Colombo Port of Sri Lanka. Transshipment hub port choice became complex and complicated as several indicators and decision-making factors are considered by spoke ports that are not limited to mainline operators and shipper/consignee (Kavirathna et al.,2018). To get the maximum share of Chattogram Port, an open rivalry exists and hub ports are offering a bundle of benefits to increase liner networks and develop a wider business relationship to sustain competitive international shipping.

Port Klang, Malaysia, and Chattogram Port, Bangladesh are ranked among the 100 busiest container ports in the world by following their port throughput in a year by Lloyds List. Bangladesh's premier seaport Chattogram is well connected to Asian major "Hub" ports such as Singapore, Port Klang, and Colombo for international container trade and plays the role of "Spoke" actively. A quantitative data analysis method is applied to get the scenarios of vessels calling between two ports

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and carrying containers to understand the gaps, obstacles, and management issues for augmenting shipping services and arranging seamless connectivity. In a selected monthly throughput data analysis of Chattogram Port, it is explored that the direct contribution of Port Klang to Chattogram Port is 19% only whereas jointly with Port of Tanjung Pelepas is 30%.

Two other major findings are the absence of a bilateral contract between Bangladesh and Malaysia especially Chattogram Port and Port Klang for exclusive facilities such as priority berthing, reduced charges, flag-vessel sharing, etc., and port choice of MLO (Main Line Operator) and NVOCC (Non-Vessel Operating Common Carrier) to select Port Klang as Hub to connect with the Spoke Chattogram Port regularly. These findings would benefit port authorities, feeder operators, port users, and others in making strategic port choice decisions. Asian ports like Chattogram, Port Klang and Singapore mostly handle containerized goods and are considered as the main route of liner shipping. The advancements in containerization and shipping technologies have made port connectivity even more essential than before. Ports serve both domestic and international goods transportation. Port efficiency directly depends on its infrastructure and superstructure. So cargo handling systems are significantly interconnected with a smooth supply chain. Adequate port connectivity least transportation costs and ensures quick delivery times. Maritime countries depend much on ports for their economic growth.

Saha(2016) experienced that the population of Bangladesh is increasing and the demand for new things is highly upsurged. Chattogram Port took several initiatives to increase port capacity where Bay Terminal will add value to accommodate upcoming throughput. Overall, this paper aims to recommend improvements to the port connectivity between Port Klang and Chattogram Port to fit the "Hub and Spoke Model" for developing a long-term relationship, increasing the number of vessels and containers as well as decreasing container freight and vessel operating costs significantly.

2. Problem Statement.

2.1. Less Contribution of Port Klang.

Port Klang has some operational challenges though it is one of the busiest ports in Asia. Congestion is one major problem during peak seasons because this port acts as a transshipment hub too. Considering the distance and geographical position of Port Klang, the contribution to Chattogram Port is less and not near the quantity of Singapore Port.

2.2. Automation and Modern Facilities of Port Klang.

Port Klang needs to reform technological transformation to face operational challenges. Container handling systems upgraded through automation. Automation is not planned in Port Klang and other supplementary modern port facilities such as bunkering, repair, and maintenance of vessels are absent.

2.3. Port Rivalry with the Port of Tanjung Pelepas and Singapore Port.

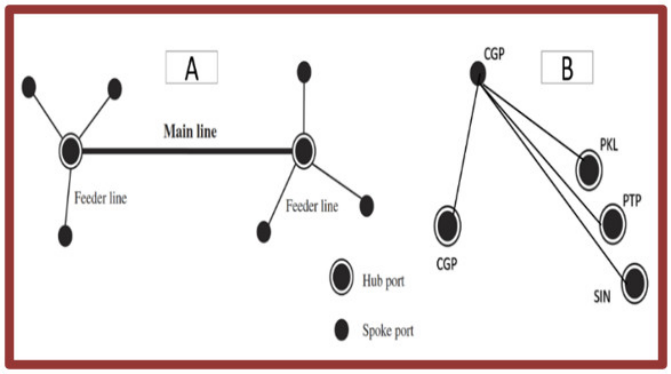
Port Klang is challenged by Singapore Port also the domestic Port of Tanjung Pelepas is taking its share and inland intermodal connectivity of Port Klang is very poor and highly dependent on the port performance as maximum shipping activities are performed inside of the port. Port Klang, port of Tanjung Pelepas, and Singapore are combinedly dominating Southeast Asia's shipping industry through competition. Port Singapore is fully organized as a global transshipment hub and offers foster facilities in Southeast Asia. Port Klang also offers competitive freight rates too dominate others though in statistics of reputation port Singapore is advanced in many perspectives of shipping facilities.

2.4. Shortage of Communication, Coordination, and Others between Port Klang and Chattogram Port.

There are some communication and coordination challenges between Port Klang and Chattagram Port Chattagram Port is in a strategic position in South Asia and it is the main gateway of Bangladesh. There are many limitations of terminals and berthing systems in contrast to the demand for this lack of infrastructure. An integrated feeder service is absent due to the shortage of communication, coordination, and others between Port Klang and Chattogram Port. Data-driven internal transfer and sharing of both ports by bilateral contract is lagging in increasing the number of vessels and throughput.

3. "Hub and Spoke Model" in Maritime Transport.

Figure 1: A: Pure Hub and Spoke network model by Xing and Zhong (2017). B: Hub and Spoke Model for Chattogram Port.



Source: Authors.

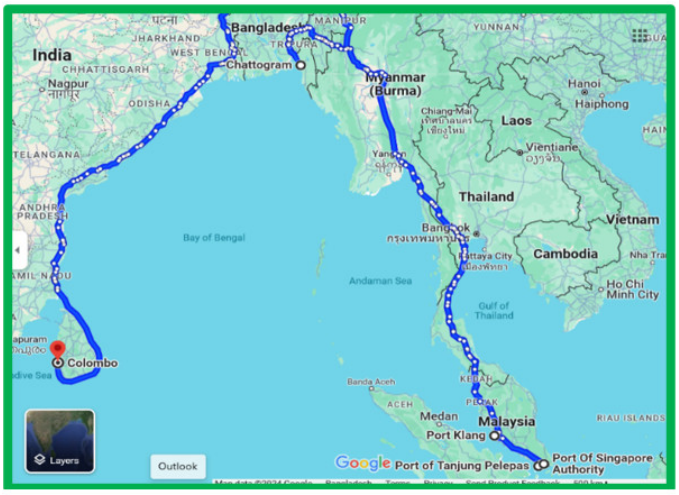
Figure 1 shows the "Hub and Spoke" Model that is practiced mostly in managing more than 3.0 mTEUs containers of Chattogram Port annually. Direct container port calling from Chattogram Port is not running successfully as imports and exports of Bangladesh are not regular and the volume of the commodity is placed by mainline operators differently at different times. Interestingly, as a spoke port, Chattogram Port is a seaport and manages the maximum containers from South Asia leading to

the attractive position of Chattogram Port in the container transportation system. A "Hub and spoke" Model is exhibited by Xing and Zhong (2017) to give a common carrier situation in collecting ocean freight from the clusters as well as spoke ports.

4. Port Rivalry in South Asia and Southeast Asia.

There are two lines in terms of container port hub connectivity from/to Chattogram Port. Firstly, moving forward to the westbound, and selected port is Colombo, Sri Lanka especially connecting to the east coasts of the USA, Europe, Middle East Asia, and others. On the other hand, another line, connecting to Southeast Asia, China, the West Coast of the USA, and other selected hub ports are Port Klang of Malaysia, Port of Tanjung Pelepas of Malaysia, and Singapore Port. Here, Laem Chabang Port of Thailand has little contribution but is not considered in this research.

Figure 2: Distance of hub ports from Chattogram Port.



Source: Google, 2024.

Most of the shipping lines as well as MLO used to Colombo for westbound cargo but also used by other lines for going to the east in managing both sides and getting the slots of mainline vessels and getting low rates by extra facilities as per the strategic business decision of the respective company. There is no nearby business rivalry of Colombo Port at Indian Ports are in low draft condition where they treated as Spoke Ports. Eastbound vessels have many options to take berth in Port Klang, Port of Tanjung Pelepas, and Singapore. As per Figure 2, it is visible that Port Klang is the nearest hub port and developed facilities to catch the maximum number of mainline vessels, Chattogram Port always chooses this port but some vessel needs to go to Singapore for other activities such as bunkering, repair, and maintenance. Mention that Singapore is performing well not only in managing containers but also in other logistics facilities that are available cheaply and account for the quality of fuel and services. In between Singapore and Port Klang, the Port of Tanjung Pelepas has a good contribution to Chattogram Port as this port is operated by Maersk Line and they have a big share of Chattogram Port's throughput and operating own feeder vessel.

5. Research Methodology.

This research applied a quantitative research method for the analysis of data where five factors (Passage Distance, Port Throughput, Port Ranking, and Sharing by MLOs) were selected to get the real scenario of maritime container transport connectivity between Chattogram Port and Hub Ports (SIN, PKL, PTP, and CBO). All collected data related to Port Klang by centering Chattogram Port that insight into the performance of both ports. In addition to those, a literature review is conducted to state the role of the "Hub and Spoke Model" in maritime transport and port rivalry in South Asia and Southeast Asia. Just after the literature review, rigorous quantitative data is analyzed to get the opportunity to adopt new style and technology in the modern port and terminal management as below:

5.1. Passage distance between Hub Ports and Spoke Port.

Passage distance data is collected from Ports.com (2024) which is a reliable source to calculate the passage between two ports in nautical miles (See Appendix-1). This data is analyzed to know the nearest and farthest hub port from the spoke port Chattogram Port.

5.2. Port Throughput Data Analysis and Port Ranking for the Selected Hub Ports and Chattogram Port.

A set of data for port throughput analysis and ranking of ports were extracted from the Lloyds List (2023). Here, the port ranking year is observed as per the port throughput of previous years(See Appendix-2).

5.3. Hub Port Selection by MLO (Main Line Operator).

This data was collected from Chattogram Port from 2022 to 2024. Due to data scarcity, every 1st quarter (January to March) was selected and analyzed to get the participation of MLO/NVOCC from/to selected hub ports.

5.4. Sharing of throughput.

To follow Section 5.3, data for 2022, 2023, and 2024 was summed to get the market share of selected hub ports that were generated in Chattogram Port.

6. Literature Review

Huang et al. (2022) studied the hub and spoke system to ensure a reliable container shipping network and emphasized in putting backup hub ports. In this study, their topic was the hub-and-spoke system's design and coordination which established collection between the seaports and the inland terminals. The Port of Rotterdam's hinterland network is mainly focused here. Containerization trends and large trade volume trade are putting pressure on the transportation network of the hinterland and it is causing congestion problems in the port area. Farmakis et al. (2023) identify different kinds of passengers flowing through

inland as a problem because Hub and Spoke reduce the traveling distance and cost also creating satisfaction for the users. They studied on Multi-Objective Tri-Level Algorithm which is designed for the Hub and Spoke network in Short Sea Shipping Transportation. This algorithm attempts to divide regions for service and allocate short routes for vessels geographically. The Hub and Spoke model applies to different transportation such as sea shipment, rail transportation, air transportation, industrial distribution telecommunication. This model is applicable for planning the route of Short Sea Shipping. Depending on the hub location problem, this model is classified by single and multiple-hub.

Haralambides et al. (2000) deliberate the liner shipping growth and forecasted dividing ports into three types hub, trunk, and feeder port. To gain market access to small ports, a hub-and-spoke network is developed. Also said that many countries are investing in making their port a hub port to get competitive advantages in the port terminal business. With information markets, hub ports becoming more efficient and reducing the middleman (broker, NVOCC, forwarder) needs that are stated in the paper. (Huang et al., 2022) stated that with the flourishment of containership, the network of hub-and-spoke developed considering the economic condition of container shipping routes. The author mentioned that the feeder and hub port can have two types of relationship, like attraction and production. For evaluating the competition of transshipment port, a model is proposed in the paper that combines integer programming and SWOT and it's said in the paper that the explaining situation capability is enough in this model. Ji et al. (2015) studied about Pearl River in the Delta region of China statistics and identified three factors by which hub port costs may affected. Time deadline, the capacity of a container ship, capacity of cargo handling by the port are the factors. Again, said that the containers that are single types cost more than the containers that are multi-type. Ji et al. (2015) also said that the large container shipping trend is responsible for developing a hub-and-spoke network. In the paper of Hsu and Hsieh (2007), they mentioned two objective models with minimizing shipping and inventory costs determined by liner route, size of a ship, and frequency of sailing. Furthermore, Ji et al. (2015) mentioned the lack of attention to the connection of the containership's liner design with hub ports. Jung et al. (2024) whispered the diversity of shipping lines and the operation of maritime and landside ports raise the hub-and-spoke economy. This study highlighted that different shipping lines' services to the export port are disturbed by the effects of diversity.

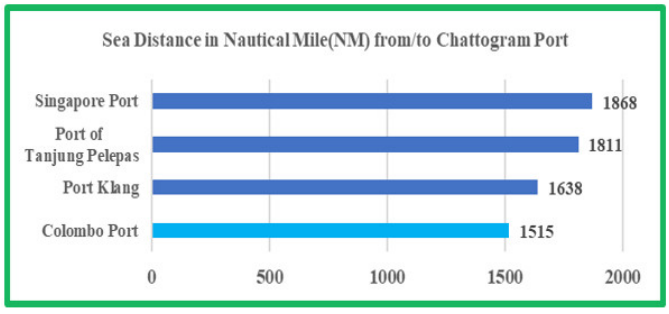
Meng and Wang (2011) invented a model for designing an intermodal hub-and-spoke network named MPEC (Mathematical Program with Equilibrium Constraints). This model helps the intermodal operator choose the route. In this study, the author identified problems for intermodal hub-and-spoke network design where all hubs are not connected well but an intermodal route may go through multiple hubs. Here, the transition becomes diseconomies of scale from economies of scale when the cost function is flexible and different types of container relations that are moving around the companies are a suggestion for hub operators as well as carriers. Characteristics variant, if shipper put impact for choosing hub-and-spoke according to the features. However, hub-and-spoke can reduce the cost for two elements (economy of shipping and transshipment). The study excluded distance and flow of trade relationships but transportation is very important for the efficient moving of international freight. They only worked with the data of October 2006 (one month) for this shipment seasonality and changing of selecting route consideration was not possible for them. If the demand is changed at the time of pre-holiday, more efficiency might be found by the shipper in switching the direct service but the rate can be higher in this way. Finally, all of the researchers explored the positive things of the hub and spoke system that may vary from port to port and the sales and marketing strategies of the hub port.

7. Quantitative Data Analysis.

As per methodology, data collected and accomplished the quantitative analysis in five factors as below:

7.1. Passage distance between Hub Ports and Spoke Port.

Figure 3: Hub Port's Distance from Chattogram Port in Nautical Mile.



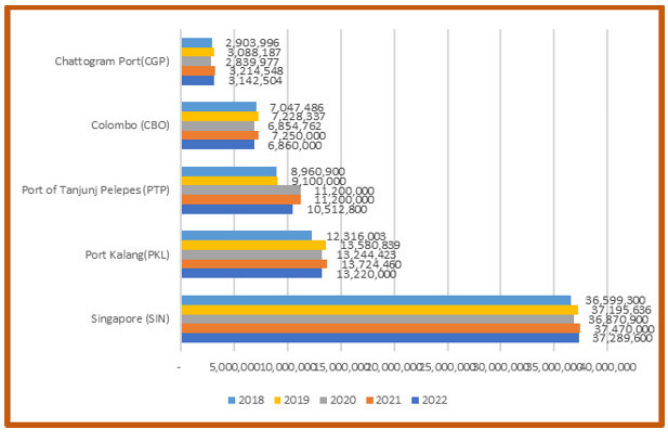
Source: Ports.Com, 2024.

Figure 3 shows the distance of hub ports from Chattogram Port where the Port of Colombo is the nearest and Singapore is the outermost geographically. For oceangoing vessel distance is a factor in calculating the operating cost of the vessel where fuel consumption is very high in reaching to hub port. Remarkably, Singapore is the global hub with all kinds of facilities for a vessel and is efficient in serving feeder services and containers are unrestricted to load mainline vessels timely.

7.2. Port Throughput Data Analysis for the Selected Hub Ports and Chattogram Port.

Nowadays, port ranking is determined by port throughput and works as an indicator of the busiest container port in the world. Irrespective of port efficiency, productivity, and handling method, the port throughput number is the main capacity for handling cargo and containers of the port. Here, spoke port Chattogram has the lowest throughput whereas Singapore is at the peak with 3 mTEUs and 37 mTEUs respectively. Figure 4 indicates the ups and downs of Colombo Port, Port of Tanjung

Figure 4: Port Throughputs of Selected Hub Ports and Chattogram Port.

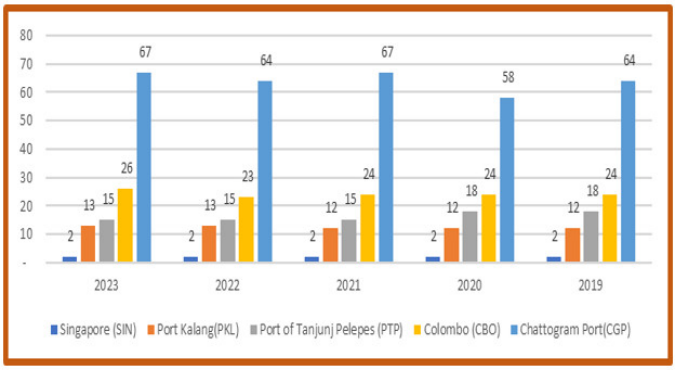


Source: Lloyds List, 2023.

Pelepas, and Chattogram Port in the last 5 years but Port Klang and Singapore are developing slowly and steadily to retain customers in their pockets actively.

7.3. *Lloyds List Port Ranking of the Selected Hub Ports and Chattogram Port.*

Figure 5: Port Ranking of Selected Hub Ports and Chattogram Port.

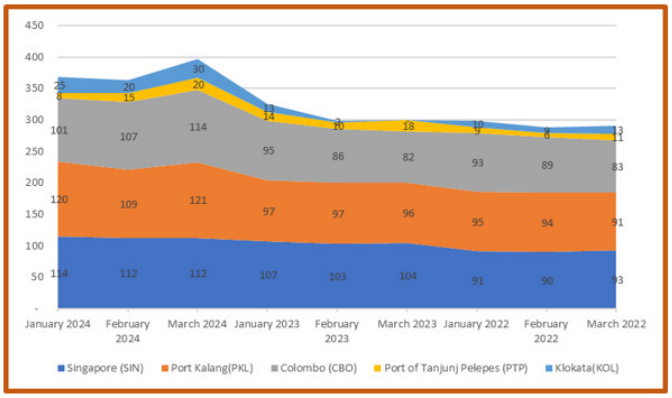


Source: Lloyds List, 2023.

For more than 10 years Lloyds List(2023) has been publishing the port ranking based on the container handling in the last year. Singapore remained in the same position in the last 5 years and performed as the 2nd largest seaport in the world just after Shanghai, China. After that Port Klang is striving to set in the 12th position from 2019 to 2021 but declined in the last 2 years 2022 and 2023. Fortunately, all selected hub ports and spoke Chattogram Port has been in 100 clubs for a long time. Remarkably, in 2020, Chattogram Port reached the historic 58th position but failed to continue and placed in the declined 67th position. Figure 5 displays the deteriorated position of Colombo in 2023 but they recovered in 2022 and were in 23rd position from 24th position in 2021, 2020, and 2021 sharply.

7.4. *Hub Port Selection by MLO (Main Line Operator).*

Figure 6: Port Selection by Main Line Operator(MLO).

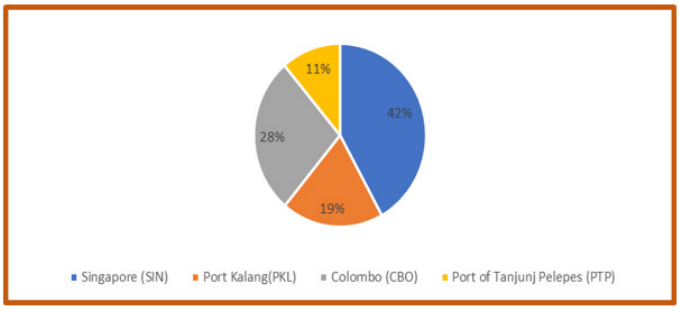


Source: Lloyds List, 2023.

A stacked area chart (Figure 6) demonstrates the number of MLOs who used Chattogram Port as the final destination from the selected hub ports and Kolkata port of India, It is great that the number of MLOs increased at the beginning of January 2024 compared to earlier months of 2023 and 2022. The Port of Tanjung Pelepas failed to attract maximum MLOs as the 15th busiest port (Figure 5) with 10.5 mTEUs (Figure 4) port throughput in 2023. Kolkata Port has a minimum in all aspects of vessels, TEUs, and MLO numbers.

7.5. *Share of Chattogram Port's Throughputs by Hub Ports.*

Figure 7: Share of Chattogram Port's Throughputs by Hub Ports.



Source: Lloyds List, 2023.

In the last part of the data analysis, it was observed that Singapore Port is the market leader in capturing the maximum 42% share of Chattogram Port. After that Colombo Port is handling 28% and connecting the maximum destinations of USA, UK and EU. Differently, country-wise Malaysia is in 2nd position where Port of Tanjung Pelepas (11%) and Port Klang 19%, together, more than Colombo Port. In terms of spoke connectivity, Figure 7 shows the low performance of the Port of Tanjung Pelepas as the 15th busiest container port. Earliest Figure 6 also guided the minimum participation of MLOs in the Port of Tanjung Pelepas which resulted in the bottom share of Chattogram Port.

8. Major Findings and Discussions.

This section extracted the major findings of this research and explored the potential factors to increase the share of Port Klang to handle more containers from/to Chattogram Port. However, the ranking of Singapore is much higher than Port Klang and three times higher than Port Throughput. Singapore is a specialized maritime country of the world and stays in the second position as it serves the maximum number of transshipped containers along with its operations in managing national containers. Details of the findings that discussed below:

8.1. Hub and Spoke Model and its application to Port Klang and Chattogram Port.

The Hub and Spoke Model is an appropriate model for improving port connectivity between Port Klang and Chattogram. In the literature review, it was explored that the hub port needs to play an active role in organizing good passages without any obstacles, arranging suitable feeder vessels for both ports and quick discharge in both ports by applying the JIT(Just-in-Time) approach in reducing costs of the vessel.

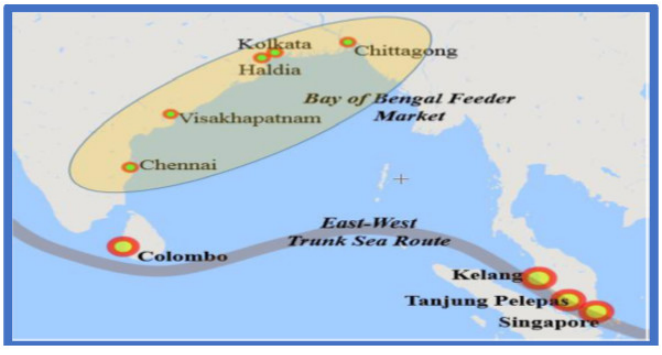
8.2. Quantitative data and its applications in Port Klang.

In the quantitative analysis, it was explored that Port Klang is in 13th ranking in Lloyds List but managing 19% port throughput of Chattogram Port although it has less distance compared to Port of Tanjung Pelepas and Singapore Port. Moreover, big MLO Maersk Line is providing an ample share of Port of Tanjung Pelepas and Singapore but not making a good contribution to Port Klang.

8.3. Route expansion and capture new spokes by Port Klang.

After the Chattogram Port, the government is planning to use the 2nd largest seaport Mongla Port, and the newly built Payra Port. Port Klang has the opportunity to work on developing new routes with new ports in Bangladesh.

Figure 8: East-West Trunk Sea Route and Position of Hub and Spoke Seaports.



Source: Kavirathna et al., 2018.

Figure 8 shows the movement of the container vessels in the East-West trunk sea route developed by Kavirathna et al.(2018). Driven in particular, Klang is the best sea route for going to China. On the contrary, Colombo is the first choice of port users going to the USA from Chattogram Port. To manage the feeder port's cargo and container by mainline operators, it is difficult to select Port Klang as the transshipment hub because the port's selection process involves determining a range of criteria, for port service providers, since these decisions directly influence their business opportunities.

8.4. Port development.

Port development is essential and it is a continuous process for a country (Saha, 2015). Both ports have an expansion and development plan to accommodate future growth and also bring innovation and automation in the container handling at terminals efficiently. Along with port development, new product development is crucial to attract the port community and port users.Port Klang has some operational challenges though it is one of the busiest ports in Asia. Congestion is one major problem during peak seasons because this port acts as a transshipment hub too. Considering the distance and geographical position of Port Klang, the contribution to Chattogram Port is less and not near the quantity of Singapore Port.

9. Future Directions

The research set some future directions specifically for Port Klang to improve the connectivity towards Chattogram Port and acquire or increase the maximum share or throughput of Chattogram Port as below:

- To develop a good relationship with Chattogram Port Authority and advise the government of Malaysia to take the initiative for the bilateral contract in connectivity through seaports and consider Port Klang as a priority.
- New product development for the expansion of Port Klang such as Cotton Hub for Bangladesh and provide integrated free access to Port Klang by Bangladeshi share.
- Create all kinds of logistics for feeder and mother vessels and smooth connections between feeder and mainline vessels.
- Conduct feasibility on Automation and application of Robotics and AI (Artificial Intelligence) for reducing handling time and cost.
- Improve inland freight transport connectivity for inland or domestic containers and not handle at the inside of the port protected area and must move to the last mile by constructing new nodes and modes of rail and drayage or road intermodal.

Conclusions.

Hub and Spoke is an established model to create integrated maritime logistics for operating main-line container vessel operations. All reputed main line operators of the world set a

global liner network in the specific terminal of a hub port to collect cargo and containers from the spoke or small port. Among the hub ports, Port Klang has a 19% share of Chattogram Port's throughput only. On the other hand, Singapore shares 28% but it is 230 km more distance from Chattogram Port. Overall, Port Klang is suitable and needs to develop one seamless connection between two ports to gain more share of Chattogram.

The main purpose or function for the improvement of connectivity between Port Klang and Chattogam Port is to expand trade between Malaysia and Bangladesh by taking the initiative to reduce operational costs. Global trade is expanding and new technologies are emerging day by day too. Through the collaboration and adaptation of updated infrastructure can foster international partnerships. By the collaboration, Chattogram and Port Klang can be the future players in the global maritime industry. The strategic recommendations outlined in this paper provide a roadmap for achieving these goals, ensuring that both Chattogram and Port Klang remain competitive in the rapidly changing maritime industry of Asia.

Technological development enhances the capacity of the port and attracts feeder ports to use hub ports to reduce feeder costs and time. Chattogram Port has potential as it is increasing port throughput and planning to increase its hinterland to serve landlocked parts of Asia such as India, Nepal, Bhutan, Myanmar, and China. Moreover, Chattogram Port has the potential to act as a semi-hub for Kolkata, India. Therefore, it is urgent to develop connectivity between the two ports inevitably.

Appendix.

Table 1: Appendix-1: Distance Table.

Ports	Port of Colombo, Sri Lanka (CBO)	Port of Klang, Malaysia(PKL)	Port of Tanjung Pelepas, Malaysia(PTP)	Port of Singapore, Singapore (SIN)	Remarks
Passage Distance in Nautical Mile(NM)	1515	1638	1811	1868	I Nautical Mile=1.852 Kms. Not Considered the Port of Laem Chabang, Thailand and Indian Seaports

Table 2: Appendix-2: Port Rankings and Throughput (2018?2023).

Year / Port / Ranking / Throughput	2023 Ranking	2022 Throughput	2022 Ranking	2021 Throughput	2021 Ranking	2020 Throughput	2020 Ranking	2019 Throughput	2019 Ranking	2018 Throughput
Singapore (SIN)	2	37,289,600	2	37,470,000	2	36,870,900	2	37,195,636	2	36,599,300
Port Klang (PKL)	13	13,220,000	13	13,724,460	12	13,244,423	12	13,580,839	12	12,316,003
Port of Tanjung Pelepas (PTP)	15	10,512,800	15	11,200,000	15	11,200,000	18	9,100,000	18	8,960,900
Colombo (CBO)	26	6,860,000	23	7,250,000	24	6,854,762	24	7,228,337	24	7,047,486
Chattogram Port (CGP)	67	3,142,504	64	3,214,548	67	2,839,977	58	3,088,187	64	2,903,996

Table 3: Appendix-3: Hub Port Choice by MLO (Selected 9 Months).

Year/Port	Singapore (SIN)	Port Klang (PKL)	Colombo (CBO)	Port of Tanjunj Pelepes (PTP)	Kolkata (KOL)
Jan-24	114	120	101	8	25
Feb-24	112	109	107	15	20
Mar-24	112	121	114	20	30
Jan-23	107	97	95	14	13
Feb-23	103	97	86	10	2
Mar-23	104	96	82	18	-
Jan-22	91	95	93	9	10
Feb-22	90	94	89	6	9
Mar-22	93	91	83	11	13

Table 4: Appendix-4: Sharing of Chattogram Port's Throughput by Hub Ports and Others.

Year/Port	Singapore (SIN)	Port Klang (PKL)	Colombo (CBO)	Port of Tanjunj Pelepes (PTP)	Kolkata (KOL)	Total
January 2024	98,278	60,570	67,577	16,190	204	242,819
February 2024	88,239	53,632	58,450	16,297	250	216,868
March 2024	104,391	50,930	63,561	28,379	453	247,714
January 2023	94,529	36,978	52,715	13,294	266	197,782
February 2023	73,459	28,805	51,619	14,103	88	168,074
March 2023	86,369	38,718	51,314	25,575	-	201,976
January 2022	101,735	40,295	77,850	43,989	1,332	265,201
February 2022	101,360	31,792	62,320	39,369	1,020	235,861
March 2022	93,475	41,929	71,414	27,113	1,736	235,667

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