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## The role of Bangladeshi seaports in connecting 21<sup>st</sup> century maritime silk road and silk road economic belt to implement OBOR ( One Belt, One Road) initiative of China

Razon Chandra SAHA a\*

<sup>a</sup> PhD Researcher, Bangladesh University of Professionals. Dhaka-1216, Bangladesh

### Abstract

The strategic place of Bangladesh in the proposed 21st century maritime Silk Road will attract the international traders where port transport service may offer to the neighbor countries for establishing industry also reducing shipping cost significantly. The objective of the OBOR initiative that proposed by China is to address the common needs of transport access for all and launch a new global transport networks by the combination of surface and water transportation system. In the aim of connecting two transport modes of OBOR, intermodal freight transportation system has a role to join two nodes of two modes to cover the line from Bangladesh to China and bid maritime logistics to the adjacent industry and offer for setting new industry to follow the easy access of seaports in Bangladesh. In this connection, Bangladesh has opportunity to draw lines from its seaports to China economy road by direct road haulage, road and rail, water and road combination to facilitate the port transport service. To follow the intermodal freight transportation system, it is possible to connect with India, Nepal, Bhutan, China and Myanmar where Bangladesh can do transport business with them and able to develop the area of those countries that are landlocked especially seven sisters of India and south-west part of China and southern part of Myanmar predictably. Recent initiative of India, Nepal, Bhutan and Bangladesh's motor vehicles agreement (BBIN) is indicating cargo movement among the four South Asian neighbors for a common transport policy to develop the region where OBOR will play a vital role to connect all countries of the South Asia especially cost effective maritime access through Bangladeshi seaports. This paper tried to find out the secure access to and from the Bangladeshi seaports by all means of transport as per OBOR initiative of China by following two-fold research methodology qualitative and quantitative.

*Keywords:* Asia; Bay of Bengal; Intermodal; Freight; Silk Road.

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\* Corresponding author. Tel.: +8801712101630; fax: +880941-564623.  
E-mail address: rason864@yahoo.com

## 1. Introduction

The strategic place of Bangladesh in the proposed 21st century MSR (Maritime Silk Road) will attract the international traders where port transport service may offer to the neighbour countries for establishing industry also reducing shipping cost significantly. President Xi Jinping branded the OBOR (One Belt and One Road) as a model for “Win-Win Cooperation” to achieve the common goal of world development (HKTDC, 2017; Xue, 2016; Mah, 2016; Knight Frank, 2015). In addition, Xue (2016) added that China is trying to establish a mechanism that function at both the regional and global levels broadly. Furthermore, the change of port governance structure that constituted on important pillar of achievement in developing the port in terms of sustainability including economic, social and environment challenges possibly (Cariou et al., 2014). Now-a-days, the global economy is basically a network that connect the flows of goods, services, people, capital and information swiftly (Karim, 2015). As a large rising power, OBOR is the new initiative of PRC (People Republic of China) to boost the world trade by centring PRC and dominate the world trade arguably. Bangladesh has long term relationship with PRC especially RMG (Readymade Garments) trading of Bangladesh that is highly depends on the Chinese raw materials and accessories. Ironically, South Asia has been entered into the international limelight in the recent years for its natural resources, large human resource and driven strength of consuming or purchasing products (Bhatta, 2004; Saha, 2015). South Asia is experiencing high trade costs as because of inadequacy in trade and transport facilitation where trade is constrained by the poor infrastructure condition of ports and inland transport networks, congestion at port, road and highways, together, which resulted high costs for doing business and sharing the marginal profit to the operational cost in managing the freight transport. Mention that inland connections and proactive hinterland status in economies of scale in shipping for easy access to international trade (Parola et al., 2017).

The aim of the research is three-folds to cover the role of Bangladeshi seaports in connecting with the OBOR. First, to know the OBOR and its implication to the maritime sector of Bangladesh in connection with South Asia in Section 2. Second, to explore the seaports of Bangladesh for connecting with the MSR in Section 3 that followed by research methodology in Section 4. The rest of the paper is structured as follows. Section 5 presents the literature review to clear the gaps of the study in the current literature. The most important part of the paper is Section 6 and 7 where qualitative and quantitative research survey findings are stated as per opinions of respondents. Next, Section 8 verifies the literature and respondent’s opinion as compare and contrast where role of Bangladeshi ports are describes to connect with OBOR. Section 9 concludes the paper. Scarcely, transport facilitation is the physical integration in a region that has positive impact on the cost and efficiency of international commodity movement where the level of trade in South Asia is absent because of transit or transshipment agreement among the member countries to foster the integration process (Alam, 2014). The objective of the China OBOR initiative is to address the common needs of transport access for all and launch a new global transport networks by the combination of surface and water transportation system. In the aim of connecting two transport modes of OBOR, intermodal freight transportation system has a role to join two nodes of two modes to cover the line from Bangladesh to China and offer maritime logistics to the adjacent industry and offer for setting new industry to follow the easy access of seaports in Bangladesh. In this connection, Bangladesh has opportunity to draw lines from its seaports to China economy road by direct road haulage, road and rail, water and road combination to facilitate the port transport service. To follow the intermodal freight transportation system, it is possible to connect with India, Nepal, Bhutan, China and Myanmar where Bangladesh can do transport business with them and able to develop the area of those countries that are landlocked especially seven sisters of India and south-west part of China and southern part of Myanmar predictably. Recent initiative of India, Nepal, Bhutan and Bangladesh’s Motor Vehicles Agreement (MVA) through BBIN is indicating cargo movement among the four South Asian neighbours for a common transport policy to develop the region where OBOR will play a vital role to connect all countries of the South Asia especially cost effective maritime access through Bangladeshi seaports. This paper tried to find out the secure access to and from the Bangladeshi seaports by all means of transport as per OBOR initiative of China by following two-fold research methodology qualitative and quantitative.

## 2. One Belt and One Road (OBOR)

In 2013, China proposed the SREB (Silk Road Economic Belt) and the 21<sup>st</sup> Century Maritime Silk Road (MSR), together, OBOR (One Belt, One Road) or Belt & Road (B&R) initiative to facilitate the global supply chain and e-commerce as well as transport connectivity as purely economic initiative for generating new solution for development (XFA, 2017a; Fasslabend, 2015). Greatly, OBOR is the new dimension and era of world trade as well as new thought that dreamed by China in this century to run the world trade with the Chinese magic in the view of surface and maritime transportation to cover the most of the countries of the world. Together, OBOR will

reshape the global trade, connect the major cities of SREB and port cities of MSR and transfer the socio economic contribution of approx. 70% large population in the 65 countries of the world (Invest KL, 2017).



Fig.1 OBOR Map by XFA (Xinhua Finance Agency, 2017a; Xinhua, 2017).

To make known, port activities are great parts of the global supply chain that creating pressure on the port cities to cater the global investment networks as advantages of the opportunities for integrating the global supply chain (Zhao et al., 2017). Here, the “Blue economic passages” are the sea areas that covered three oceans (Indian, Pacific and Arctic) for featuring advance maritime cooperation to bolster the maritime trade of the world (XFA, 2017a). Mention that approx. 90% freight volume of China is transported by sea and China treated MSR as important initiative as like Silk Road Economic Belt under the initiative of OBOR or B&R (XFA, 2017a). In addition, OBOR development plans are guided to improve connectivity in major five areas: Policy, Infrastructure, Trade, Currency and People to sustain China’s economic growth steadily to the world (BDO Singapore, 2015). China inspired OBOR countries for developing infrastructure where seaport infrastructural development is prioritized in order to realize international transport facilitation importance to increase trade and financial integration (BDO Singapore, 2015). In order to fulfil the OBOR initiative, it is essential to provide financial support to the member countries where AIIB (The Asian Infrastructure Investment Bank) will support the implementation of this initiative strategically (BDO Singapore, 2015).

Under the B&R initiative, China aspires to review the old silk trade route by enhancing the existing influences and developing new influence to explore wider opportunity in trade and commerce (Xue, 2016). Bangladesh agreed in the principle of OBOR especially in the MSR projects that will link the roads, infrastructure, and economic zone, market potential, promoting investment and consumption, job opportunities and others (Karim, 2015). Greatly, the potential scope of the OBOR is vast where a lots of problem identified in a broad based uncertainly (HKTDC, 2017). Tactically, China has a big dilemma to utilize her huge economic power in terms of soft power that includes technology, sophistication, innovation etc. and hard power of continuous economic growth, totally, it may call as “Smart power “of the world (Karim, 2015). In relation to, MSR proposed to sustain the economic growth and development of China who would like to drive the project with the developed and developing countries in the aim of doing business with all commercially (Mah, 2016). Finally, OBOR is the new model of international cooperation and globalization that could help to build a common of shared interests, responsibility and destiny, featuring mutual political trust for economic integration and cultural inclusiveness (The Daily Star, 2017).

### 3. Seaport Facilities in Bangladesh

With the great performance of principal seaport Chittagong that managed by CPA (Chittagong Port Authority), Bangladesh has other two seaports named Mongla and Payra. Among them, Chittagong is playing a vital role in managing approx. 90% maritime trade (CPA, 2016). On the contrary, Mongla port is not performing well and underutilized by port users due to less inland connectivity. To support the neighbouring countries and convert to

deep seaport, government established third deep seaport Payra in 2013. Historically and traditionally, port has important location factor exclusively positioning in port city or close connection with major cities of a country or hinterland that exceeds the boundary to assist the neighbours as regional maritime logistics service provider that changed the economic relationship between port and port cities (Zhao et al., 2017). In here, port city Chittagong has the connection with the major cities of South Asia through road, rail and inland waterways that featured the port connectivity with cities via intermodal freight transportation inevitably. In addition, newly established Payra seaport has the integrated connection to serve the hinterland and will play a role to act as future deep seaport for Bangladesh and India as main maritime gateway to South Asia.

In addition, port as a prominent node of a transport chain, it has to arrange seamless transport connection up to the last mile of hinterland (Juhel, 1999). Moreover, port development is a commercial matter intrinsically and representation of port authority by the government for developing the port as well as regulatory body of port management and operations may be different but port has to perform commercially (de Langen et al., 2017). MSR could be an effective alternative to the BCIM EC (Bangladesh China, India Myanmar Economic Corridor) to facilitate the ASEAN (Association of South East Asian Countries) connectivity (Karim, 2015). As has been stated, to process the port image and reputation, port has to respond to the environmental issues in the trends of green and sustainability challenges and consider the factors of green innovation in the sustainable port planning (Parola et al., 2017). Briefly, Alam (2014) expected that in the maritime network, Bangladeshi seaports are able to serve landlocked Bhutan and Nepal also India's eastern part which are basically landlocked as a good connectivity for reducing transport cost and passage time exceptionally. In line with previous trends, the geographical condition of Chittagong port puts additional strength in supporting other national ports Mongla and Payra as potential to be a major competitor against the port of India, Sri Lanka and Myanmar in handling the existing cargo and container also facilitate the future maritime volume towards South Asia. Overall, Bangladeshi ports are capable to handle own seaborne trade as well as provide maritime logistics support to neighbours regionally and internationally.

#### **4. Research Methodology**

Research methods are set of specific techniques for selecting cases, measuring and observing aspects of social life, gathering and refining data, analysing the data and reporting on the results (Newman, 2011). In the paradigmatic wilderness, mixed methods research has popularity and wider acceptability that resulted greater understanding and/or validity of research as well as stylish methods in the age of choosing research methodology (Bazeley, 2004). In the focus of new topic in the world politics, the role of Bangladeshi ports needs to verify and know the opinions of port users and others to fulfil the dream of OBOR especially to build the connection of Bangladeshi seaports with OBOR. In this connection, two fold research methodology qualitative and quantitative are applied to understand the scenario and thoughts of OBOR in the mind of researcher, respondents and others. However, Neuman (2011) assured that irrespective of qualitative and quantitative research, all researcher systematically collect and analyses empirical data for explaining to the society meaningfully.

Precisely, renowned research organization Knight Frank (2015) added that the agenda of port and logistics infrastructure, transport infrastructure and inland transport connectivity, industrial infrastructure, regional industry and emerging industry will be solved by the OBOR outstandingly. In this connection, in the literature review, port productivity, competitiveness, governance are reviewed with the subsection of geopolitics and special discussion on IFT. In the process of qualitative and quantitative research survey, high ethical matters are maintained and used the code instead of name of the respondents where some respondents requested researcher for not disclosing the name to anywhere as OBOR is under the shape of finalization.

#### **5. Literature Review**

Literature review attributed the geopolitics of the South Asia exclusively in the Bay of Bengal, port selection factors for MSR that highly depends on the port productivity, competitiveness and governance, furthermore added the inland transport networks subsection with the features of IFT (Intermodal Freight Transportation). Mention that IFT is the new era of freight transport management. Before going to the Qualitative and Quantitative research survey, research tried to know the present literature on OBOR and Bangladeshi seaports. In here, literature on Bangladeshi seaports are analysed preliminary. After that literatures on OBOR stated with the view of world analyst who are thinking the next course of action regarding OBOR. Driven in particular, special geo-political approaches of MSR and thought of India are verified highly to get the research gaps and non-availability of the related literature.

##### *5.1 Geopolitics in South Asia*

Political and governing institution of most countries in South Asia are weak and suffering from some kind of

stability due to political and social barriers significantly (Bhatta, 2004). Mention that Bay of Bengal is meaningfully important for South Asia and Southeast Asia to get the maritime access directly or indirectly via intermodal or multimodal transportation in the inland transport networks. Karim (2015) found that Bay outlet would add huge value in the development and economic growth of Asia prospectively. More significantly, China's influence through OBOR not only bring large amount of investment both domestically and overseas but also transforms the China's governance, casting multiple waves of repercussion via peacefully means ( Xue, 2016). To establish deep seaport, Bangladesh is facing the problem of capital investment by India, China and others that may be treated as geopolitics of Bangladesh's development partner or crisis of strategic investor that daunting challenges for Bangladesh. (Karim, 2015).

Nevertheless, unsettled transit and transshipment arrangement or agreement factors are resulted high transport costs especially for land-locked Nepal, Bhutan and Seven Sister of India that is basically landlocked and boundless barriers to the economic growth and development (Kharel, 2009). OBOR or B&R initiative is China's core foreign and domestics economic strategy that seeking both provide and seek economic, financial and technical assistance to facilitate successful economic connection with foster world irrespective of developed or developing country (Mah, 2016). Fasslabend (2015) described the MSR in Asia that mapped from Colombo Sri Lanka to northward loop to Kolkata and Bangladesh. In here, map does not clear the specific port of Bangladesh. As India opted out, it is assumed that Bangladesh will get the opportunity as they signed in the OBOR strategy and development partner of Bangladesh in trade and commerce. It is arguable that combination of port and port cities strategies for enhancing the port competitiveness in terms of maritime connection and port efficiency (Zhao et al., 2017). Then lack of infrastructure facilities in South Asia has hampered the logistics industry in addition of geo-politics and foreign policies (Alam, 2014). Hopefully, MSR will build smooth, safe, efficient transport channel with important port linking and will act as the financial trade networks and economic belt to make connection in between the ports and hinterland (XFA, 2017a).

## 5.2 Port Productivity

Port performance indicators are used to assess the port productivity to characterize the performance of a given transportation system (Wang et al., 2014). Notteboom and Rodrigue (2005) called for port regionalization that is associated with the hinterland concept as a part of port governance because inland distribution is becoming important dimension for maritime transportation and freight distribution up to the maximum hinterland areas as per customer or port user demand economically and timely. The port sector is facing the transition significantly because of globalization, changing market places and rapidly changing the technology that increased the responsibility of port authority and terminal operators to serve the port users up to the final destination or source of the cargo efficiently (Taneja et al., 2012)

## 5.3 Port Competitiveness

Cariou et al. (2014) appealed to the port sector for going to upgrade the infrastructure, introduce innovative operational routines, improving service quality standards beyond cargo operations and traditional seaport activities for fully customer satisfaction as it is highly sensitive sector or industry of the world. Currently, world trade is demanding for safe and resilient container transportation with the concept of resilience to the context of a port – hinterland transport network for ensuring the safety and security for efficient hinterland transportation (Chen et al., 2017). To understand the commercial activities of port, de Langen et al. (2017) stated two assumptions in port competitiveness, developing port to attract ships, cargo volume, another one is investment for own development. First assumption comprises for hinterland development and easy foreland connections for managing shipping trade and provide maritime logistics support to the maximum port users within the hinterland. After that second assumption embraces to bring the investment for port development especially in port and inland infrastructure, equipment installation and port expansion as per trade forecast.

Moreover, port has to face the openness to competition in the provision of port services, physical and regulatory integration of transport networks, to allow local and national economies for taking appropriate services they required and address the development as a continuous factor of sustainability (Juhel, 1999). From the ten key drivers of port competitiveness that examined by Parola et al. (2017), port geographical location and site, nautical accessibility, hinterland proximity and connectivity, and maritime connectivity referred the efficiency of port and its transport networks towards hinterland. In addition, they added that port pricing, infrastructure, service quality and operational efficiency are major drivers in port operations to attract the port users as competitiveness of the service in the port sector. However, in Bangladesh, infrastructure bottleneck divides the poor and rich, rural and urban also creates the imbalance in the competitiveness (The Daily Star, 2017). Furthermore, research argued that construction and interconnectivity infrastructure of ports and roads plays a leading position in the development

of MSR (XFA, 2017a).

#### 5.4 Port Governance

Port governance configurations had rarely been in place for long enough to observe steady-state consequences or results because of complexity in the process of port reform (Brooks et al., 2017). This is acute in the port sector of South Asia exclusively in Bangladesh due to less attention to the governance initiative by the port authority and government. Moreover, Brooks et al. (2017) advised for assessing the output of port governance that should be followed by initiating any change that derived from the assessment and further changes are appreciated by users that aiming to minimally adjust or comprehensive reform, the specifics of the governance activities reshaped a model in place. In addition, Brooks et al. (2017) suggested to promote the private sector involvement in port sector where World Bank (2007) provided the best example of landlord port model that managed by public port authority but private companies are carrying the jobs of port operations profitably, in here, both are in the part of port governance. Chittagong port is the best example where port is managing by the port authority under the supervision of Ministry of Shipping and port operations are managing by private company partially. As the pioneer service provider in the logistics sector, port governance has changed to the market openness in the hinterland connection and engagement of private investors as the degree of port privatization (Parola et al., 2017). Moreover, as a part of port governance, Roe (2009) identified three components competition, higher quality services and reduced costs beyond the traditional commercial port activity.

#### 5.6 Inland Transport Networks

Wong (2014) argued for strengthening the hinterland advantages, continuous process improvement by terminal operators, enhancing the management of port development in capacity planning and showing the transparency in port management and operations, lastly, attract the port investor in digging the deeper to uncover the niches.

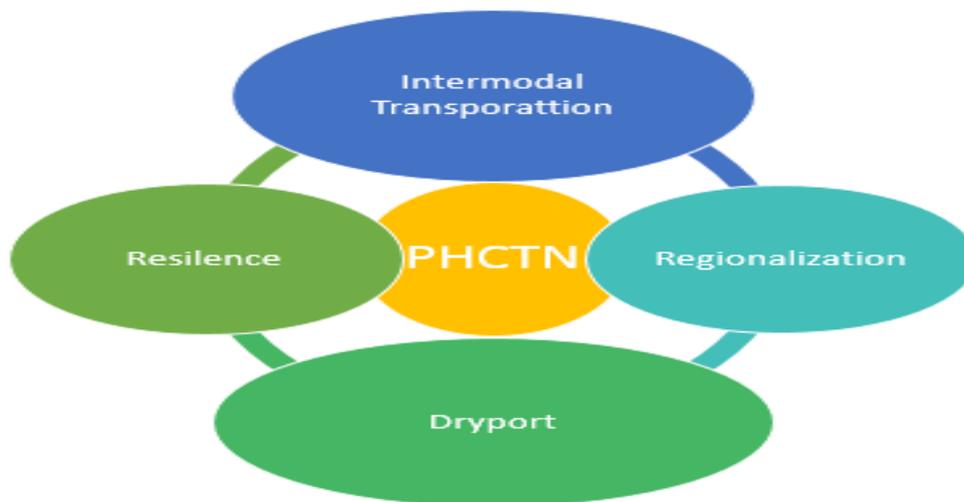


Fig.2 Port Hinterland Container Transportation Network (PHCTN) by Chen et al. (2017).

In here, research found the global measures such as total flow volume, profit share values as the public documents in qualifying the performance of Intermodal freight transportation system (Wang et al., 2014). Intermodal facilities are rare in Bangladesh that increased the road freight and containers are moving in between port to consignee or shipping premises by road haulage/trailers without any valid policy of intermodal (Saha, 2016)

Overall, both B&R initiative and SDGs (Sustainable Development Goals) are committed to promote infrastructure connectivity, increase regional cooperation and achieving common green and sustainable development (XFA, 2017b). Port governance has great impact on efficiency and competitiveness where efficiency refers to the handling of port operations and management to bring the port productivity in a high rate, on the other hand, competitiveness is rivalry among the seaports in a cluster or region to provide best performance to the port users actively (Cariou et al., 2014). Juhel (1999) identified that efficiency of inland transport is a crucial factor in serving the hinterland that focused the port potentiality, overall, trade growth prospects in terms of transport networks requirements, environmental protection and safety. OBOR offers great potential to the business and economic cooperation and development but having the risk of political instability, infrastructural bottlenecks, financial discipline, waste of

resources especially know how and expertise on infrastructure planning and financing in some of the less developed regions along the Belt and Road (Notteboom and Yang, 2017). Extraordinarily, South Asia emerged as a regional entity in the international political system but regional cooperation is absent and failed to strengthen regional cohesiveness to the prevalence of conflict over the desire of peace and stability.

## **6. Qualitative Research Survey Findings**

Six basic questions were asked to the respondents in the aim of acquiring the knowledge on OBOR and its key component MSR, in addition, to know the positions of Bangladeshi seaports to play a role in connecting South Asia in terms of port facilities and its further inland distribution networks as below:

### *6.1 Maritime Load Center of Maritime Silk Road for South Asia*

All respondents are argued for Chittagong port as the second MLC (Maritime Load Centre) in the Bay of Bengal after Colombo, Sri Lanka to cover the South Asia and Southeast Asia where Colombo is basically for hub port to operate the main line for managing the containerized cargo of South Asia. Main freight belongs to India and Bangladesh where Chittagong is the best option to manage the cargo and container of India, Bangladesh, Nepal, Bhutan, China and Myanmar accordingly. Unfortunately, as per OBOR map and MSR selected MLC, Chittagong port is not considered where Chittagong is the viable to support the MSR and connect with the surface road by integrating IFT in the whole freight transport system of South Asia. In the road or railway transportation or implementing IFT for connecting SREB, Chittagong is the feasible in the South Asia. In addition, Myanmar has the opportunity to set the port in Sitwee that inspired by India but it has rare feasible to cover the freight of Bangladesh, Nepal and SW part of China economically and timely.

Most of the respondents were open to say that just for pleasing India, China drafted the map and it is not wise decision to select Kolkata because this port is not up to the mark or having the standard in port operations to be MLC for big project like MSR and they justified that Chittagong is the experienced and efficient port rather than Kolkata, India. Moreover, they informed that as India opted out from the OBOR, Chittagong may be the first priority of world trader to manage seaborne trade in the initiative to cover South Asia optimistically. Overall, all favoured to select Chittagong as MLC of MSR in South Asia and requested to develop the principal port of Bangladesh by investing and expanding the areas of port activities as like Singapore and Rotterdam.

### *6.2 Importance of Maritime Silk Road for Bangladesh*

In all aspect, MSR is most important for Bangladesh for facilitating seaport access to the port users and doing maritime logistics business with the neighbours arguably. All respondents advised to the government of Bangladesh to keep liaison with China for selecting Chittagong as MLC of MSR and negotiate with the OBOR authority to get financial assistance to develop Chittagong port in international standard and enhance the operational efficiency of port that will increase the port productivity and be stay with the port rivalry with India, Sri Lanka and Myanmar. One respondent explored that selection of two ports in the line of MSR is strategic because Colombo, Sri Lanka is island port with high draft basically selected for hub operations and push-pull of containers to the surface bound small ports of India and Bangladesh. As alternative or second port, Kolkata or Chittagong are the target port where Kolkata port is congested and limited draft. In this case, Chittagong port may be the best connector with the major hub ports of Asia like Sri Lanka, Malaysia and Singapore for facilitating container trade or security and fuelling centre before entering to the South Asia.

China is the world power in all aspects including political economical and business. In the sense of investment, China has plan to invest in the port and logistics sector in the banner of OBOR. In this connection, Bangladesh has the opportunity to get the grant for developing port infrastructure, installation of heavy equipment and development of inland transport networks especially railway development which needs huge investment to install double decker dedicated track for container transportation. From port to major cities directly. Another respondent suggested to set dry port in the cross border areas nearby land port and make seamless road connection with the seaports to facilitate overseas container transport trade with the neighbours.

### *6.3 Placement of Bangladeshi seaports for IFT system in South Asia for international transport trade*

Road transportation is challenging in Bangladesh because it takes huge time at the passage in sending or receiving cargo to/from seaports where time and cost both are factor in catching the international shipment highly. However, it is lucrative for all that Chittagong port and newly established Payra are featuring the next international seaports in South Asia who will manage the maximum portion of cargo and container possibly. All seaports of Bangladesh laid in the same coast line of the Bay of Bengal and having the opportunity to call second port and serve the same hinterland, therefore, placement positions of Bangladeshi seaports are considerable in the IFT system with the

justification of some respondents who are optimistic in the process of IFT in Bangladesh for advanced freight management and provide maritime logistics support to all appropriately and carefully. They dreamed about IFT as sustainable transport system that will bring the good transport linkage also reduce the pressure of trucking and multimodal transportation by saving cost and time dramatically.

Most of the respondents worried about the present poor conditions of road and highways of Bangladesh that is not fit to operate the IFT for mitigating the domestic demand where service request had received from the neighbours. In this situation, it is essential to develop the inland transport network and connect with the seaports for implementing IFT objectives where OBOR is the forum for placing the Bangladeshi seaports for quick development to increase the areas of hinterland to do international transport trade. All respondents cautioned the government for not missing the opportunity to developing inland transport networks and seaport with the help of OBOR as well as taking financial assistance from OBOR. In here, government has to draft the strategic transport plan for freight transportation under the system of IFT via seaports to the neighbours as international transport trade.

#### 6.4 *Role of IFT in exposing the international forum BBIN, BCIM and OBOR*

IFT is the new dimension in the freight transportation that is environment friendly and easy access to /from seaports from /to timely and economically. Respondents were acknowledged the limitation of IFT in Bangladesh where Chittagong port is facilitating the intermodal facilities up to capital city Dhaka ICD (Inland Container Depot) via rail transportation also to Pangaon RICT (Riverine Inland Container Terminal) nearby Dhaka via waterways transport proudly. In addition, Chittagong port is sending their direct import containers to off-docks/ICD in Chittagong port city and vice versa for export containers. Most of the respondents are seeing this experience in the next process to manage IFT all over the country and serve the neighbours through dry port. Intermodal choice made by the respondents instead of multimodal as intermodal will save the cost and time in managing import and export trade but placed the fearless factors of getting the scope to transport the container in the so called “Chicken Necks” owned by India and infrastructural development of inland transport networks.

Thanks placed by the respondents to the government for active participation in the regional and international forum like BBIN, BCIM and OBOR. In here, BCIM EC forum is priority forum that stated in OBOR principal in joining Kolkata (India) to Kunming (China) in the spatial transportation via Bangladesh and Myanmar. Integrated IFT system is the only way to strengthen the activities of BCIM economic corridor where Bangladesh has the opportunity to connect from seaports to the line of BCIM EC. Respondents welcomed India for taking initiative for BBIN MVA by which Bangladesh will get the opportunities to sell the transport services to Nepal and Bhutan via IFT system. As containerization brought the easy access to the port by trader and prodigious solution to manage small amount of freight by SME (Small and medium Enterprises) users, IFT will bring the business opportunities to the landlocked countries and states of South Asia, China and Myanmar under the banner of BBIN MVA, BCIM EC and OBOR in the coming days as expected by respondents.

#### 6.5 *Economic Benefits of Bangladesh from OBOR*

There is no doubt about economic benefits from OBOR that will be received by Bangladesh directly or indirectly. OBOR is the unlimited pipeline for Bangladesh that will supply the physical infrastructure but Bangladesh will get output in long time indirectly as expected by the respondents. Most importantly, Bangladesh will sustain the RMG business with the help of China and will try to set the new industries in the export processing zone for supplying the finished product at affordable cost. In addition, with the basic principle of the MSR projects, Bangladesh will be benefited from initiative of OBOR especially in developing port facilities and inland transport network development in Bangladesh. However, respondents identified the key areas where economic benefits are attributed as below as opportunities for Bangladesh

- Infrastructure development of port, inland road & highways, rail networks, communication and technology predictably.
- Great opportunity to develop the logistics industry of Bangladesh where new companies will be developed nationally, internationally by joint ventures that will increase the points of logistics performance indicator by World Bank.
- Having the opportunity for doing maritime transport business with the neighbors. As the capacity of Mongla port is underutilized, this port may be spare for neighbors especially for India, Nepal and Bhutan by which foreign exchange will be earned.
- Probability to expose the tourism industry in front of the world for visiting Bangladesh to view the natural resources and sites that will bring the economic to the hospitality in hotel, restaurant and tourism company.

- Energy efficiency is very important to implement the SDGs where Bangladesh will get the economic benefit from the energy sector. By setting the port and inland distribution network, cost of energy will be decreased highly and technology will show the path of using less energy all over the country.
- Financial Services will be easier where banking and insurance facilities will be at the door. Long term capital investment will be stress-free and nominal with low rate where investment opportunity will be opened by international financial organization.
- Interconnectivity within the region will be increased by the political reformation that will bring the stability of the country by creating job opportunity

### 6.6 Innovative ideas for OBOR and Bangladesh

Some respondents had provided innovative ideas that will help to establish Chittagong Port as prime MLC in MSR to connect in between MSR and spatial road accordingly.

- Appealed to AIIB through OBOR for developing port infrastructure of Chittagong port and merge the port authority of Mongla and Payra in one single authority and increase the interconnectivity among the seaports. In addition, connect the all seaports by rail, road and waterways primarily and seamless connection with all major cities and export processing zones by establishing dry port.
- Construction of floating terminal in the port protected area of Chittagong port to facilitate the energy handling services for handling the big vessel of LPG, LNG, coal and others. In addition, floating terminal for handling of RICT bound containers that will help to reduce the multiple handling at port jetty and using trailers in the port or off-dock areas.
- Government must be emphasized on the deep sea port construction in Chittagong only as it is the convenient place to mitigate the future demand of port facilities for domestic's trade and others. Only deep seaport will help to governance the three seaports and they will sustain in the port rivalry in the South Asia.
- Provide the priority on the inland transport network development where IFT is the main strategy to reduce pressure on road and truck by establishing ICD, Dry port and RICT where port will be nearby the port users.
- Open the door of transit and transshipment and free uses of seaports and related institutions like ICD, RICT and off-dock as initiative of regional development by which Bangladesh will start the "Maritime transport business" professionally and it is a strategy to attract the investor in the port and other industries lucratively.

Overall, qualitative research reflected the role of Bangladeshi seaports especially the strategic part of main seaport Chittagong who is standing in the Bay of Bengal to represent 21<sup>st</sup> Century MSR of OBOR or B&R initiative of China currently.

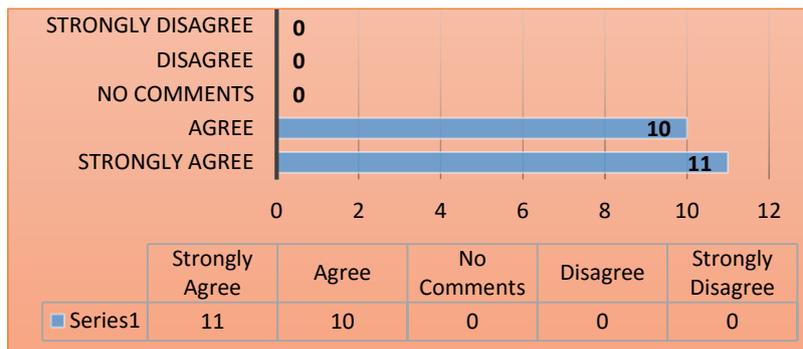
## 7. Quantitative Research Survey Findings

As per research methodology, in the process of exploration by following the Quantitative survey the below responses are found at the field:

### 7.1 Viable Port in South Asia for OBOR

To assess the feasibility of seaports after Colombo, Sri Lanka in the aim of serving the South Asia especially North-East India (Seven Sister), South-West part of China , India, Nepal, Bhutan, Myanmar and Bangladesh, all respondents argued for Chittagong port of Bangladesh that is viable in all aspects of MSR. Particularly, nobody supported other seaports of India (Kolkata) and Myanmar (Sitwee) in comparing with Chittagong port and found no alternative of Chittagong port as MLC for MSR.

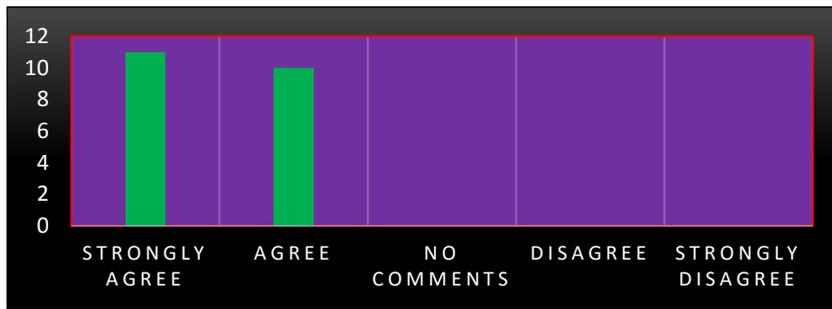
### 7.2 Potentiality of Bangladeshi Seaports for OBOR



Bangladeshi seaports are potential to serve the South Asia as they have geographical advantages and good inland connections arguably. All respondents found the potentiality where above 50% respondents agreed strongly.

Fig. 3 Potentiality of Bangladeshi Seaports for OBOR.

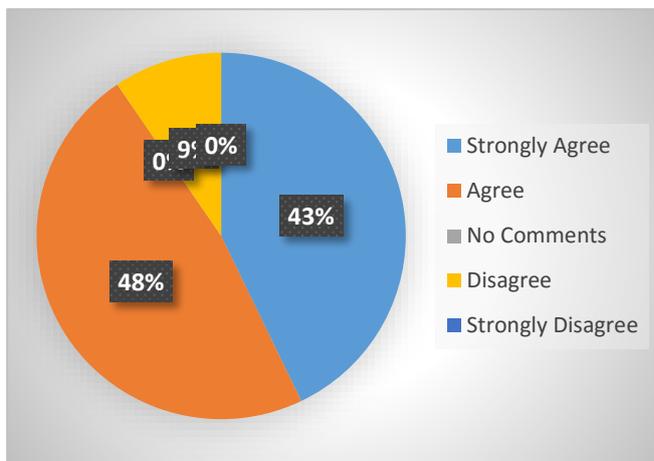
7.3 Chittagong Port is the best MLC in South Asia for OBOR



Historically, Chittagong port has the best performance in the ports of India, Bangladesh and Myanmar where respondents strongly argued for Chittagong. On the other hand, below 50% were agreed but doubt in mind to huge renovation and infrastructural works to be done in representing MSR.

Fig.4 Choice of respondents for Chittagong Port as best MLC for MSR.

7.4 Forums are good enough to strengthen the transport networks of Bangladesh



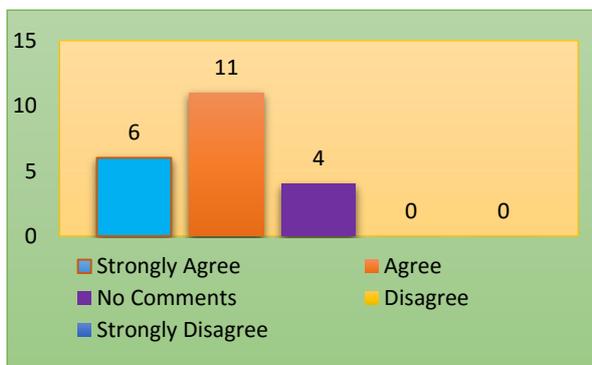
BIMSTEC (The Bay of Bengal Initiative for Multi-Sectorial Technical and Economic Cooperation), BBIN (Bangladesh, Bhutan, India, and Nepal) and BCIM EC the active forums to strengthen the transport networks where Bangladesh's position is strategically important for all that supported by 43% respondents strongly, in addition, 48% agreed with the positive role of member countries in those forums. On the contrary, 9% disagreed with the statements as they stated that too many forums but not active fully. The initiative of various forums in the South Asia like BIMSTEC, BBIN, BCIM and others will focus the collaboration and integration among the countries of Asia and others.

Fig.5 Role of international forums to strengthen the transport networks of Bangladesh.

7.5 Role of Inland Transport network for IFT to support OBOR

Not only port development in Bangladesh is sufficient but also inland transport network development is the prerequisite of developing intermodal freight transportation system in supporting OBOR that supported by above 50% respondents strongly. Mention that inland transport network development is essential in Bangladesh to connect among the seaports also with foreign countries to provide maritime logistics services. However, nobody disagreed with this statement as IFT has strong role in managing containerized freight in the maritime transport and connectivity.

7.6 Capacity of Bangladesh in fulfilling the demand of OBOR



To make standard transportation system, Bangladesh has to fulfil the demands of MSR as well as OBOR especially infrastructural development of seaport, increasing port productivity and operational efficiency, inland transport network development. Researcher did not find any comments from 4 (19%) respondents as they argued for standardization of seaports that needs to go so far. In here, above 50% respondents provisioned for developing the port by government to avail the opportunity of OBOR where 29% strongly agreed to start the operations under the banner of MSR and develop the port facilities day by day.

Fig.6 Capacity of Bangladesh in fulfilling the demand of OBOR.

Overall, respondents are happy with the research questionnaires and appreciated for this research as it will help to

know the view of experts in taking steps about the Bangladesh and must consider Chittagong as MLC for MSR in connecting to the South Asia.

### 8. Compare and Contrast

Bangladesh is keeping an open eye to see the offer of OBOR where capital investment or liquid money that sorely needed by emerging economies of Bangladesh (The Daily Star, 2017). China must have a wider perspective to build the relation with neighbours under long term grand strategic decision particularly true with the small and medium sized countries and be flexible to understand different position, concern and expectation of them (Xue, 2016). OBOR selected BCIM EC projects for building a relationship with the members and connecting the road transportation with the port importantly (Knight Frank, 2015). However, on the name of geopolitics or geo-economics, opted out notice of India, neighbours like Bangladesh has the opportunity to grab the fund and invest in the port development (Knight Frank, 2015). In another study, Cao and Shi (2016) cleared the basic theme of OBOR initiative as cooperation development, openness and inclusiveness, mutual benefit and win-win results for all countries of the world. However, Fasslabend (2015) advised to analyse the high magnitude project OBOR critically for understanding it principle and its features before taking any strategic decision. Logistics integration is the formulation of strategic relations with inland freight distribution, now-a-days, freight is managing by port itself due to containerization, intermodality and ICT (information and communication technology) that enhanced the spatial and functional reconfiguration in all nodes and modes of the freight transport management (Notteboom and Rodrigue , 2005). On the contrary, India is worried about MSR as it missed the major ports of India and looking forward the Chinese dominance in the Indian Ocean (Lain and Pantucci, 2015: Fasslabend, 2015). Port – City relationships are playing significant role in the process of port development and increase the hinterland under the circumstances of global economic and trade integration (Zhao et al., 2017).



Fig. 7 Keeping Chittagong as best MLC in South Asia extracted from XFA by Author.

Newly, floating crane is the latest innovation by Taneja et al. (2012) that increased port productivity , promotes modal shift and temporary terminal that prescribed for the developing countries to reduce road congestion in port areas. Due to poor regional transport connectivity, South Asia is paying excess cost in freight management like maritime access of Nepal and Indian Seven Sister from the congested port Kolkata instead of Bangladeshi ports where India could have better and shorter route across Bangladesh easily and profitably (Rahmatullah, 2009). Chinese port related companies are keen to attract foreign investment and would like to work in the work in foreign countries through investments in foreign ports (Notteboom and Yang, 2017). Overall, port development is essential and it needs to develop as per standard of international seaports. In here, Bangladesh has to change the scenario of seaports by developing all seaports and their inland connections to increase the points of logistics performance index. As India opted out from OBOR, Chittagong is the possible MLC in the South Asia (After Colombo) to facilitate BBIN and BCIM Economic Door. The undesirable trends of OBOR explored by the Muttarak (2017) about Chinese migration to the developing countries in Asia and Africa on the name of development where China’s economic development activities go hand in hand with migration is reflected in previous development policies. To dominate in the Indian ocean with due respect to India, China is investing in the construction of port in South Asia including Chittagong, Bangladesh (Fasslabend, 2015). Research argued that construction and interconnectivity infrastructure of ports ad roads plays a leading position in the development of MSR (XFA, 2017a). China

prioritized the MSR that will deepen ocean cooperation by fostering closer ties with countries by road transportation in the aim of connecting with SREB (Xinhua, 2017). However, Bangladesh acutely needs the deep seaport for economic sustainability where huge investment is required, nothing to say in power rivalry in the Bay, OBOR may show the path of its establishment soon (Karim, 2015). As a matter of fact, Kharel (2009) found that Kolkata port of India is congested and inefficient having draft problems, in against of Kolkata port, Chittagong and Mongla port of Bangladesh are viable to provide maritime facilities to Nepal, Bhutan and India. Efforts in South Asia, BCIM EC will assist to see an expansion of trade and investment with China (Mah, 2016). In here, Sri Lanka may be the great hub of MSR where Chittagong has the opportunity to be the best MLC in South Asia for connecting the SREB via inland transport networks.

## 9. Conclusion

OBOR is the leading networks of the world for transport connectivity that is trying to bring all trade in the banner of Silk Road. Emerging, Bangladesh has to take this opportunity and assist China to implement OBOR objectives and increase the trade volume and introduce new product “Maritime Logistics” that will earn foreign exchange. Mention that trader has to consider the geographical advantages of Bangladeshi seaports especially Chittagong port to act as prime MLC of MSR inevitably. In addition, Bangladesh has the prospect to join MSR and surface Silk Road by developing intermodal freight transportation system and process the container transportation from Chittagong Port to SW part of China and the annex of Nepal, Bhutan and Seven Sister of India. But port development is crucial for Bangladesh as country is facing obstacles in the infrastructural development seriously (Saha, 2015). In this situation, Kharel (2009) suggested for regional transit and transshipment arrangement and agreement along with infrastructural investment is appreciated for roads, railways and seaport development of South Asia immediately. The main barriers of Bangladeshi seaports are infrastructural, handling equipment shortage and poor inland transport network, inadequate inland terminals and dry port also railway connection in between the port and major cities. In this connection, it is essential to develop port and related facilities with the help of OBOR or taking loan from AIIB accordingly. In addition, transport connectivity is important for regional integration, cooperation that must be viewed through the lenses of geo-political issues touched spatial communications by identifying major regional routes for efficient transportation (Alam, 2014).

In this context, to make the tie with China through MSR is good sight for Bangladesh because China's growing leadership role in the seaport industry are challenged to demonstrate a global benchmark and best practice status in terms of supply chain integration, connectivity, service availability and productivity (Notteboom and Yang, 2017) that helped to develop Bangladesh port sector competently. Remarkably, OBOR or B&R initiative will bring the many more investment opportunities for Bangladesh that will reform standard infrastructure of seaport and inland transport networks for attracting the trader to use the region as cheap place of investment as well as doing business profitably. It is argued that port governance is more significantly task by which changes are occurred in government also changing politics within a nation (Brooks et al., 2017). Pleasantly, international trade is carried by sea transport predominately and container transport via ports that handled container is playing a crucial role in regional economies where greater seaborne trade links from/to Asia is resulting faster regional economic growth and development (Song, 2002). Afterwards, Karim (2015) treated the OBOR as opportunities, if Chinese investment that may be benefited the Silk Road economies that are strategic or emerging or it's a doubt.

In order to secure , the signing of OBOR, AIIB and other development projects of China by Bangladesh, on the other hand, recent investment of India in Bangladesh for developing port facilities, inland transport networks who opted out from the OBOR, overall, it's a crucial factor for Bangladesh to take effective decision to manage both India and Bangladesh also stay with development agenda of Bangladesh to compete with the fastest world in terms of growth of trade and economic development and pleasing the development partners and international trader. In the output, research explored that Bangladesh needs to prove the maritime accessibility to OBOR and the point of Chittagong port as prime node of MSR scientifically . Finally, this paper examined that Bangladeshi ports need to develop as per international standard to connect with OBOR and serve the neighbours effectively.

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